

**Management and Operations Study of the
Police Department**

TOWN OF WATERTOWN, MASSACHUSETTS

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1 INTRODUCTION AND EXECUTIVE SUMMARY

This first chapter provides a summary of the process utilized by the Matrix Consulting Group to conduct this assignment, and provides an Executive Summary of our principal findings and recommendations.

1. INTRODUCTION.

The Matrix Consulting Group was retained by the Town of Watertown to conduct and develop a Public Safety Study of the Watertown Police and Fire Departments (WPD and WFD). The scope of services defined in the Town's original request for proposals was comprehensive and focused on the following broad topical areas in the Police Department:

- Identify service needed for Watertown based on the characteristics of the community, statutory and regulatory requirements for response and delivery and comparison with current ability to fulfill the needs and expectations.
- Identify the public safety risks and prioritize the level of risk that must be covered based on the data and operations of the public safety departments. The type, frequency, distribution, response times, mutual aid and/or contractor provided services, staffing policies, reporting of emergency and routine responses to all services will be included.
- Define services performed by each department, any duplication of services, and services that are not currently provided, but are needed.
- Review the current centralized dispatch operation located in the new police station for Watertown emergency public safety services, including the current organization, management/supervision, training, schedule and data/technology required for each department. Comparison with other similar communities and the possible feasibility of consolidation with other departments will be included for consideration.
- Assess the current plan for deploying the required number of public safety officers and supervisors, along with vehicles / apparatus used and recommend cost effective alternatives based on the type of incident for each department. Evaluate whether there are recommended changes to improve efficiency and

delivery of service.

- Evaluate schedules for assigning required personnel, including appropriate staffing, supervisors, management, and support staff to respond from the initial call for routine and emergency service through to generating the incident report and findings, and any subsequent proceedings such as court appearance, legal action, or insurance resolution or inspection.
- Identify the required staffing levels to meet the needs of the community in the most cost effective and complete manner and examine the use of overtime and leave time for each department and in Watertown and comparable communities including operating costs, personnel impacts, and impact on delivery of service and work load.
- Evaluate feasible options for public safety service and delivery to determine whether services can be effectively shared with other public and/or private entities. Evaluate needs for service backups. Review the possibilities and cost implications of contracted services vs. staffing in each department.
- Evaluate current and planned vehicle/apparatus configuration/acquisition/replacement, maintenance and assignment practices to determine whether the existing operations are the most cost effective implementation.
- Evaluation of Departmental policies and procedures and collective bargaining provisions that impact the efficient operations of the department and public safety service delivery. Review education and/or prevention training requirements, and funding allocation in comparison to other communities and standards. Include possible recommendations that may improve the current policies, procedures, training and delivery of services in the most cost effective manner.

The project was conducted during the second half of 2011 and early 2012 by the Matrix Consulting Group project team. To conduct the assignment, the members of the project team engaged in a variety of activities, including the following:

- Met with senior management staff in the Town.
- Interviewed all members of the command staff in the Police Department.
- Conducted one-on-one or small group interviews with more than one-third of the staff in the Police Department in all functions.
- Collected data describing workload, finances, policies and procedures, accreditation, salaries and wages, benefits, use of leave and other key descriptive factors.

- Develop a descriptive profile of the Police Department that was reviewed with staff. This has been included as an appendix to this document.
- Developed, distributed and reviewed a confidential employee questionnaire that was focused on assessing employee attitudes about service levels, staffing, equipment, training, management systems, internal communications and other key factors. This was also reviewed with Town staff. This has also been included as an appendix to this document.
- Compared the WPD to a series of best management practices and attempted to conduct a survey of benchmark communities to identify potential issues for further study in the course of this project. ¹ The best practices assessment has also been included as an appendix to this document.

The final step in this process has been the development of this final report. The following section provides a summary of the project team's key findings and recommendations.

2. EXECUTIVE SUMMARY

It is important to place any analysis such as this into a complete context. A study such as this one, necessarily focuses much of its attention on improvement opportunities which need to be addressed in a client agency. However, this study process has also identified many positive characteristics for the Watertown Police Department. This conclusion was established from:

- Our extensive input and interaction with staff in the organization.
- The 'best practices' assessment process utilized in this study was also key to understanding that the Department has a history of providing high levels of service and a wide range of services in a cost effective manner.

The project team feels that it is important in this Executive Summary to highlight at least some of the positive features of the Police Department. The table, below, summarizes just a few of these positive attributes:

¹ Only a single community responded to the benchmark survey (Woburn).

Field Operations
The Police Department provides excellent response times to the community on emergency calls for service. Priority one response times average 3 minutes and 53 seconds.
The Police Department deploys various pro-active personnel in the field, including traffic officers and a task force officer.
The Police Department has an innovative briefing processes utilizing Digital HQ to ensure briefing information and training is delivered consistently to all shifts. All personnel in the Department use this system which is a model in the Commonwealth.
Patrol officers complete investigations in the field that do not require extensive time for follow-up allowing detectives to focus on more time consuming cases.
The Police and Fire Departments have a joint dispatch center.
Detectives
The Police Department utilizes an automated case management system to assign and track cases.
The Detectives have weekly meetings to discuss case assignments, status and general issues.
The Police Department has several interview rooms, which allow all interviews to be recorded.
Support Services
The Police Department effectively allocates a School Resources Officer to proactively work with the public schools in the Town. Moreover, the Department works with Town schools on critical incident planning and training.
Records management systems are automated and integrated throughout the Department.
Reports for in-custody persons are typically processed and submitted to the prosecutor the morning following an arrest.
Watertown Police Department follows an established records retention schedule for both felony and misdemeanor cases.
The evidence room has limited access to appropriate staff and all evidence is bar coded and entered into the evidence management system.
The Police Department conducts annual and random unannounced audits of the evidence room.
The Police Department conducts in-house training, which exceeds the 40 hours required by Massachusetts General Law.
The Department has an innovative program of interns which are pulled from area universities to assist the Department in a variety of analytical and other support functions.
The Police Department conducts a quarterly customer satisfaction survey to residents using police services to gauge how satisfied they were with the police response.

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The Department is one of only seven departments in the Commonwealth involved in a diversion program that results in reduced demands on the jail but also deals with offenders with mental health or substance abuse issues in a more appropriate way.
Management / Administration
The Police Department has a mission statement which is published publicly on its website.
Newly promoted supervisors attend a two-week Massachusetts Police Leadership Institute course.
The Department participates in disaster preparedness and homeland security planning and drills both locally and regionally.
The Department participates as part of the North Eastern Massachusetts Law Enforcement Council (NEMLEC), which provides assistance and support in the form of highly trained and skilled officers when needed. These regional efforts provide the Department and the Town with resources and skills it could not have otherwise.
The Department has a 'state of the art' facility with built in technology (e.g., message boards) and a functional fitness center.
The Department has high availability (i.e., fewer days off on average per employee than most departments which this consulting team has worked with) – currently at 1,729 hours per officer, or 83% of gross work time. This has positive impacts on the need for staff and overtime.

It is clear to this project team that Watertown has an exceptional police department in comparison not only to other Commonwealth agencies but nationally. While there are many recommendations in this report to improve operations these should be viewed to be evolutionary rather than a need for radical change.

The following chart provides a summary of the key recommendations found in the final report. Additional information relating to each recommendation can be found in the body of this document.

Finding	Recommendation	Fiscal Impact
The Police Department does not utilize a performance evaluation system to formally monitor performance and provide feedback on a regular basis. This results in individuals in the Department defining their own expectations without reference to formal guidance from the Town Manager or Town Council.	Currently annual performance appraisals are precluded in the labor contracts and this should be addressed during the bargaining process.	None

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Finding	Recommendation	Fiscal Impact
The Police Department does not have a formal early intervention system to identify issues before they become more significant disciplinary issues. Proactive departments will work with Officers who suddenly show tardiness or other behavioral issues.	The Department should revise the internal Affairs policies to include annual reporting requirements, how internal versus external complaints will be identified and the development of an early warning system. This, too, would need to be negotiated with the union.	Acquisition of an early intervention system could cost between \$5,000 – \$10,000.
The Police Department does not have a way to ensure consistency in disciplinary matters.	The Department should evaluate the benefits of and consider developing a Disciplinary Decision Guide with the adoption of the revised Internal Affairs Policy.	None
There is no clear philosophy nor objectives in how Community Policing will be used to program focus on “reduction of crime”, “prevention of crime”, and “reduction of the fear of crime.”	The command staff should work to ensure clear performance expectations are developed regarding values, reduction in crime and community policing efforts.	None
The Department has allowed their accredited status with CALEA to lapse.	The Department should consider regaining their CALEA accredited status. Add a civilian Accreditation Coordinator position to assume those duties of the Lieutenant related to accreditation and policy review.	Approximately \$8,500 annually. \$48,000 / year
The Captains are part of the bargaining unit and should be non-unionized.	The Town and Police Department should move towards developing a command staff that is unaffiliated with the collective bargaining process. Consider upgrading Captains to Deputy Chiefs and remove them from the bargaining process.	Subject to agreement
For the future, the Town should consider conducting a search to broaden the pool of potential applicants for the next Police Chief.	The Town of Watertown should conduct a Commonwealth search with the next Chief vacancy. Part of this process should include assessment centers, interviews, background checks and other methods for ascertaining the appropriateness of the candidate.	None
Analysis of the distribution of Patrol personnel and the resulting proactive time shows that WPD has adequate staffing to maintain desired proactive patrol utilization target of 40-45%.	Staffing levels should remain unchanged.	None

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Finding	Recommendation	Fiscal Impact
More proactive time in patrol needs to be dedicated to traffic enforcement.	Create accountability mechanisms so that patrol personnel use of proactive time is dedicated to high priority or important service needs in the Town, such as traffic enforcement	None
Adoption of a 3-12/hour shifting pattern may improve officer safety perceptions while allowing lower patrol staffing levels.	Consider adopting a 3-12/hour patrol-shifting pattern as compared to the current 5-8/hr pattern. This staffing pattern will allow a reduction of 5 patrol officers without negatively impacting reactive availability of patrol officers to respond to community generated calls for service.	(\$338,180) / Year
Consistency in shift supervision is at risk if Sergeants and Police Officers work different shifts.	In the future, regardless of shift selected, Sergeants and Police Officers should work the same shift schedule.	None
Authorized staffing levels in dispatch are often insufficient to meet demands when full time staffing levels are low resulting in unexpected levels of overtime.	Utilize part time trained dispatchers to assist handling periods when full time staff availability is low.	Conversion of overtime to part time temporary employee time.
No performance standards exist to measure effectiveness of dispatching Priority One Police, Fire and EMS calls for service.	Implement performance standards for dispatching Priority One calls for service.	None
Providing Emergency Medical Dispatch of EMS calls is mandated in 2013.	Grant funds have been secured to accomplish this prior to the 2013 requirement.	Approx \$400-500 per dispatcher (grant funds)
The two departments have not developed a consistently effective approach to 'customer service' and problem resolution in emergency communications.	The two public safety departments should develop 'customer service' approaches to address and resolve problems in joint dispatching.	None
Efficiencies can be gained through regionalization or consolidation of dispatch services	Explore opportunities with surrounding communities for the regionalization or consolidation of dispatch services.	Savings dependent on type of consolidation and number of agencies participating
A review of Support personnel processes and workload suggests that these units are appropriately staffed.	Make no changes in Civilian and Support staffing with the exception of a civilian assistant to the CS&D Lieutenant.	None

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Finding	Recommendation	Fiscal Impact
Personnel currently assigned to process payroll and purchasing believe that additional training and are needed for the Munis system.	The Police Department should work with Town staff to ensure these personnel are properly trained.	None
The Police Department has not implemented a formal case screening and prioritization system as part of overall case management.	Develop a formal case screening and prioritization system to be used by the Detective Lieutenant and Sergeant when assigning cases for follow-up investigation.	None
Current assigned and active caseloads for the detectives are in the high range at 14 – 21.8. This is higher than the best practices range of 12 – 15 cases per month.	<p>Evaluate the use of a formal case screening and prioritization system on caseloads as a way to manage workloads.</p> <p>Evaluate the ancillary duties currently performed by detectives and their effect on workload. If required assign an additional officer to the Detective Unit.</p> <p>Evaluate potential to shift responsibility for the follow up of additional minor cases to field patrol personnel.</p> <p>Consider resuming the rotation of officers from patrol through the detectives division to serve as a career development tool.</p> <p>Only if these approaches result in continued high caseload levels should another detective be added.</p>	Depends on the results of changing business practices relating to investigations and staff.
Proactive / special enforcement has declined in recent years because of the loss of funding for dedicated positions.	Continue to participate in regional task forces to the extent that these can be supported through local funding.	Depends on funding and timing.
The Department could civilianize the detail officer position.	Civilianize the detail officer because of the largely administrative functioning of this position.	Savings of up to (\$20,000) / year

2. ANALYSIS OF MANAGEMENT SYSTEMS AND ORGANIZATION

This chapter focuses on the key management systems used to oversee operations and personnel as well as the organizational structure necessary to effectively and efficiently manage operations in the Police Department.

1. ANALYSIS OF DEPARTMENT POLICIES AND PROCEDURES SHOWED THAT EFFORTS TO UPDATE THEM HAVE BEEN SLOW.

This section examines the processes that the Department employs to develop, review, revise, and distribute policies and procedures that provide essential uniform guidelines for day-to-day Department operations.

(1) Current Policies and Procedures Have Been Modified to Reflect Practices in Place Due to the Move to the New Police Headquarters.

The project team reviewed the current key policies and procedures of the WPD, which establish department policy and provide uniform guidelines for day-to-day operations. The sources for personnel and program direction do not take into account procedural changes implemented with the move to the new headquarters:

- General Orders: Are being reviewed and updated since moving into the New Headquarters.
- Standard Operating Procedures: Since the initial interviews which brought the issue to light of written procedures being outdated, Department personnel have worked to ensure the current written procedures have been updated to reflect changes in procedure required with the move into the new headquarters.
- However, only 20 policies / policy updates have been updated since the move 13 months ago. The Department believes that a gradual process is preferred to a radical updating process. The project team does not necessarily dispute this but the pace is too slow to keep the attention of staff.

The Department has the framework in place and has defined systems for directing Department members and ensuring policies and procedures are continually

updated. Personnel tasked with this responsibility need to increase the rate of review and updating of policies.

Recommendation: The Department should set a goal of review 10 policies per month. Policy manuals should be reviewed annually to ensure they remain current with law changes, legal rulings and changes to best practices.

(2) The Department Has an Established Approach for Reviewing and Updating Policies and Procedures to Ensure Policies are Current and Reflect Procedures in Place.

The project team reviewed the processes employed by the Department to review, update, and distribute policies and procedures, and how Department staff is held accountable to adhere to these directives. While there were some issues with the move into the new headquarters that posed a brief challenge for the Department to ensure all policies were current, as the following points describe, the review and update process of Department directives and protocols is well established and highly functioning:

- General Orders have are reviewed and updated at least annually.
- New policy development in most cases was required by new legislation or changes to CALEA accreditation standards.
- The responsibility for review and development of policies lies with the Lieutenant over Community and Staff Development. Command staff reviews and approves each policy change or update.
- Because the Department does not use individual performance appraisals, there is no annual opportunity for supervisors to cover and confirm specific knowledge of critical policies such as use of force, pursuit, hostile work environment reporting, use of criminal justice reporting systems and others.

Recommendation: The Department should use annual performance appraisals to offer an opportunity for supervisors to cover and confirm specific knowledge of critical policies.

(3) Review of Specific High-Liability Policies and Procedures Show That the Department Has Systems in Place to Document These Activities.

The project team examined a sampling of key directives governing high-liability activities and associated administrative responsibilities. Watertown Police Department policy requires thorough documentation of these activities. WPD evaluates this documentation formally, for training or policy modification purposes. The high-liability topics included in this review were:

- Vehicle Pursuit:
 - An after-action report is required and is advanced for review through the chain of command to the Lieutenant of the Community & Staff Development Division.
 - All reports are retained in file by calendar year (not individual) following review.
 - The procedure requires an annual review and analysis of all pursuit activities.
 - Annual training on the pursuit policy is required.
- Use of Force Incidents:
 - An after-action report is required and is advanced for review through the chain of command to the Captain in charge of Patrol.
 - The Chief of Police or his designee annually reviews these reports for patterns or trends.
 - Annual Use of Force training and weapons proficiency is required. Curriculum is predetermined.
- Internal Affairs Investigations / Personnel Administrative Inquiries:
 - No formal systems are now in place such as a “discipline decision matrix” that would include a formal review of training or policy modification.
 - The Internal Affairs Policy does not include an annual reconciliation or review of allegations for formal evaluation to identify trends in officer conduct.

- No early warning system exists to allow the Department to be proactive in determining officers in need of assistance, training or counseling.

The project team determined that the Department has systems in place to ensure high-liability activity information is collected on an individual basis, as these incidents occur with the reports forwarded through the chain of command for appropriate action. The directives governing these activities clearly define positions responsible for conducting periodic comprehensive collection of data or reviews of all such activities.

2. ASSESSMENT OF THE WPD'S INTERNAL AFFAIRS PROCESSES SHOW THAT THE DEPARTMENT HAS AN OPPORTUNITY TO IMPROVE ASPECTS OF THIS FUNCTION.

The internal affairs function is a key element for the maintenance of professional conduct in a law enforcement agency. The manner in which an agency responds to allegations of employee misconduct and the quality of such investigations greatly influences not only the public's perception regarding the agency's integrity, but also the employees' confidence that the application of the process will be objective and bias free. The Department must respond appropriately and in a timely manner to various kinds of allegations against its members.

(1) There Are Issues with the Internal Affairs Process.

The project team examined the WPD's policies and processes in place for the receipt, investigation, and disposition of complaints of misconduct by Department personnel.

- The Department provides complainants with updates to the Internal Affairs processes; briefings are provided to the Town Manager, as necessary.
- There is no system in place for the identification of external vs. internal (self policing) complaints in order for the formal annual analysis of administrative and internal affairs investigations to determine training needs or policy modification.

Use of Force and Pursuit incidents require an after-action report and formal review for training / policy purposes.

- The Internal Affairs process does not incorporate a formal Employee Intervention / Warning System used by many police agencies to provide employee assistance in the form of counseling or training in an effort to mitigate causes of misconduct.

Recommendation: The Department should revise the internal Affairs policy to include annual reporting requirements, how internal versus external complaints will be identified and the development of an early warning system.

(2) The Department, as Part of the Internal Affairs Process, Should Evaluate the Implementation of a “Disciplinary Decision Guide”.

The Department does not have a guide to help in establishing discipline for sustained allegations. Without a “Disciplinary Decision Guide” to assist as a point of reference in determining discipline, the Department, over time with different administrators, can apply different levels of discipline for similar acts of misconduct. This can have an adverse impact on employee morale, in that it fosters a sense of employee favoritism for those receiving a lower level of discipline than others for similar acts of misconduct. The following table displays a very brief example of what a Disciplinary Decision Guide might look like.

Policy Number	Conduct	1st Offense	2nd Offense	3rd Offense	4th + Offense
#	Alcohol related incidents not related to DWI	Written Reprimand / Minor	Major	Major / Terminate	Terminate
#	Neighborhood Disputes / Personnel	Minor	Major	Major / Terminate	Terminate
#	False Information in Reports	Terminate			
#	Truthfulness of Internal Investigations	Terminate			

The discipline matrix should be developed by the Department executive staff in conjunction with the adoption of the revised Internal Affairs Policy. The development

and adoption of this guide will set the organizational tone from the executive team about expectations related toward police conduct.

Recommendation: Evaluate the benefits of and consider developing a Disciplinary Decision Guide with the adoption of the revised Internal Affairs Policy.

(3) The Department Should Employ an “Employee Early Intervention” System.

Early Intervention Systems (EI) originated out of a growing recognition that a few officers are responsible for a disproportionate number of department problems related to “use-of-force” and citizen complaints. The EI system is a data-based (manual or computer driven) management tool designed to identify officers and other Department members whose performance exhibits problems, and then to provide interventions, usually counseling or training, to correct those performance problems. EI systems have emerged as an important mechanism for ensuring police accountability. Systems identify potential officer job-related stress and/or personal problems that could impact job performance and interactions with the public. EI systems typically have specific departmentally developed alert triggers that are monitored and reported through the Department’s information (manual or computer based) system. Examples of potential triggers are presented in the following table.

Performance Support Alert Triggers	
Category	Trigger
Investigated Complaints (I and II)	3 in 6 months
Vehicle Accidents (ARB)	2 in 6 months
Use of Force Investigations	2 in 6 months
Use of Force Officer Reports	2 in 6 months
Arrests for Obstructing a Police Officer, Resisting Arrest, or Disorderly Conduct	2 in 6 months
Criminal Investigations	1 in 6 months
Biased-based Policing Investigations	1 in 6 months
Hits any three categories within a rolling 6-month period	
Secondary Elements (Monitored Only – No Triggers)	
Wage Garnishments	Civil Claims Lawsuits
Voluntary Bankruptcy	Risk Management Reports

Department policies should be modified to require that individual Department member files be maintained for the examples displayed in the preceding table in conjunction with the requirement that all “use of force” and “pursuit” incident files be maintained by calendar year. Early intervention software (EIS) have evolved in the past ten years. Implementation of an EIS system should involve careful planning with involvement and support of executive management of the Department, Bargaining Units and the Town.

Recommendation: The Department should formally explore the feasibility of adopting an appropriate Early Intervention (Warning) System as a component of the Internal Affairs Process. The cost of such a system is between \$5,000 – \$10,000.

3. CURRENT MANAGEMENT SYSTEMS AND ASSOCIATED ACCOUNTABILITY MECHANISMS CAN BE IMPROVED.

For this section, the project team focused on the current systems utilized by the Department executive team and supervisors to manage and control operations, and the administration of the Watertown Police Department. In reviewing these systems the project team focused on four broad aspects of current internal Department management.

- Overall management of operations and administrative support functions.

- Management practices that develop and are consistent with long-term planning objectives and priorities.
- Management initiatives that focus on goal setting, evaluation, and performance accountability.
- Systems used for internal and external communications.

The first section deals with the development of the elements of a formal management system.

(1) Consideration Should Be Given to Developing a “Performance Based Management Plan” to Focus Specifically on Long Range Planning.

The project team has identified opportunities to improve the Department management systems. The following issues certainly have had an adverse impact on the executive team’s ability to provide an environment of long-term objective driven planning processes.

- The Department has a clear mission statement that is easily accessed by the community on the Department website. There is no value statement or accepted values included as part of the mission statement, but rather a general statement regarding “upholding the highest moral and ethical standards”.
- The Watertown Police Department conducts on-going customer satisfaction surveys of citizens with whom its personnel has had contact.
- The budget is not used for setting police objectives. Programs and associated outcomes for expenditures are not part of the budget planning process. Examples could include use of the traffic enforcement index, case clearance rates and proactive time commitments. Selection, use and budgeting on a performance basis may be a Town-wide not just Police Department issue meaning that the Town will not change its approach to budgeting for one department.
- Officers are currently informally assigned “Directed Patrol Areas” by the shift Lieutenant. There are no clear objectives regarding how Community Policing will be used to program a focus on “reduction of crime”, “prevention of crime”, and “reduction of the fear of crime.” Most importantly, there are no systems of post assignment measurement or accountability in place in the Department.

With the absence of formal long-term planning processes in place, there is the opportunity for Department personnel to develop their own ideas of what the goals and objectives are. The Department would benefit from including clear values as part of the mission statement, developing long-term strategies for improving safety and reducing crime in the Town and making clear expectations regarding community policing efforts and their focus on reducing crime in Watertown.

Recommendation: The command staff should work to ensure clear performance expectations are developed regarding values, reduction in crime and community policing efforts.

(2) Department Accountability Mechanisms Can Be Improved.

The following points summarize the project team's observations and findings concerning the use of Department and management accountability mechanisms:

- The Department has no annual, internal or external, performance objectives, by Department, Bureau, Division, or Program, and individually by program administrators and unit supervisors.
- The Department has a poor annual performance appraisal system for staff. The lack of performance measures impacts the ability of Department managers and supervisors to hold Department staff accountable. An effective appraisal system offers:
 - An opportunity to set personal goals and objectives that tie to Division / Department goals.
 - The ability to assess personal accomplishments and areas for further development.
 - The ability to establish a plan for professional growth through training or specialty assignment.
 - The opportunity to receive and provide feedback about job performance.
 - The opportunity to review and assure that all personnel know and understand high-liability policies and procedures, i.e. pursuit, use of force, hostile work environment (sexual harassment), etc.

Without built-in accountability associated with job performance through the goal and objective setting process and without formal mechanisms to provide each employee feedback about job performance through an annual appraisal system, all members of the Department set their own work standard.

Recommendation: The Department should develop an annual employee appraisal system that is job specific (patrol, traffic, detective, etc.). This will have to be constructed to meet agreed upon collective bargaining objectives and requirement.

4. THE WATERTOWN POLICE DEPARTMENT SHOULD DEVELOP A PLAN FOR REGAINING CALEA ACCREDITED STATUS.

The accreditation process assists local government leaders and police professionals in monitoring and improving the quality and performance of police service delivery systems by identifying current and desired standards of performance and the development and maintenance of Department policies and procedures to achieve and maintain those standards.

Renewing the commitment to be accredited through an accrediting body such as the “Commission of Accreditation for Law Enforcement Agencies” (CALEA), would commit the Department to attaining the highest levels of professionalism as that relates to management, policy, training, etc.

Recommendation: The Department should consider regaining accredited status with CALEA. This will have an annual cost of approximately \$8,500.

5. CRITERIA FOR EVALUATING AN ORGANIZATIONAL STRUCTURE.

In order to evaluate the organizational structure of the Watertown Police Department, the project team first identified the criteria by which the organizational structure would be judged. The paragraphs, that follow, describe those criteria as well as describe what is meant by each of them:

- **Frequency of Contact:** With what other units does the unit in question have the most frequent contact? Does it have frequent contact with the units with which it is currently organized? Are there other units outside of its current organizational niche with which it has more frequent contact?
- **Types of Contact:** Do the contacts involve the sharing of resources (personnel or equipment)? Are the contacts administrative in nature? Do they involve the passage of paperwork from one unit to the other?
- **Extensiveness of Interactions:** Are the interactions frequent but inconsequential (i.e. daily passing of time sheets would not be given as much weight as responding to automobile accidents). Are the interactions going to have an impact on the safety or the quality of life for those in the facility?
- **Connection of Actions:** Do the units exhibit an organizational dependency on one another? Would it be more difficult for one unit to do its work if there were some separation / attachment?
- **Administrative Paper Flow:** Is there an immediate need for the units to be attached organizationally to ensure the smooth flow of critical paperwork (for example, payroll making its way to Finance is not a justification for having every unit attached to Finance).
- **Support Versus Operations:** Have functions that support more than one operational unit been grouped together? Are there clear and reasonable divisions among operational units?

Each of these criteria, individually, would not provide enough information to make a decision about the appropriate placement of an organizational unit. As a group, however, they provide the information required by the project team to come to conclusions about the current organizational structure and to make recommendations for any improvements. These criteria provide a formal, analytical structure for assessing the organizational structure of public sector agencies.

The following key points summarize the key findings when reviewing the organizational structure:

- The Police Department is well organized along standard lines of services (patrol, traffic and dispatch) and support services (detectives, community & staff development and support services) under the two Captains.

- Units are well organized considering the other criteria described below:
 - **Frequency of Contact:** Units are grouped together according to their most frequent interactions. As mentioned, above, uniformed services are grouped together logically with one another and support services are separated. Key functions of planning, research and information technology also report to the administrative services Captain.
 - **Types of Contact:** There are no issues with the types of interactions between units and the way in which they are grouped organizationally.
 - **Extensiveness of Interactions:** As above, organizational units are grouped logically given their interaction with one another.
 - **Connection of Actions:** Currently, there are no organizational units that face undue operational challenges due to their placement within the overall organizational structure of the Police Department.
 - **Administrative Paper Flow:** Support functions report to a single Captain, allowing for specific focus on these issues.
 - **Support Versus Operations:** Support and operational functions are grouped independently under the two Captains for proper focus and attention.

The lone position with the potential for re-alignment is the Detail Officer, who could report to the Traffic Sergeant, as the majority of detail assignments are traffic related. This is not critical, but may be considered if the Department seeks to regain its accredited status as it would alleviate some of the workload from the Community and Staff Development Lieutenant. In addition, as evaluated later in this report the Department should civilianize this position.

6. AS WITH THE PROJECT TEAM'S RECOMMENDATION FOR FIRE, FUTURE POLICE CHIEF RECRUITMENTS SHOULD BE EXPANDED TO INCLUDE OTHER CANDIDATES IN THE COMMONWEALTH IN ADDITION TO INTERNAL ONES.

The Town of Watertown Police Chief is a Civil Service position. In Watertown historically this has meant that the position has been selected from a list of candidates who have passed a Civil Service exam. The Town Manager, as the appointing authority, must take one of the top three performers on the examine to fill the vacant position. This approach has several key implications which can negatively impact the Department and the Town:

- The Town Manager is limited to making a selection from those personnel who have taken the exam. These in general include those who work inside the Department.
- This approach limits the pool from which the Town Manager could otherwise recruit and select a Chief officer for the Department.

Civil Service regulations do not exclude external candidates from consideration for appointment. The project team believes that 'testing the market' for top management positions through a recruitment throughout the Commonwealth would be an effective approach to ensure that the best fit of management skills for the Town was attained.

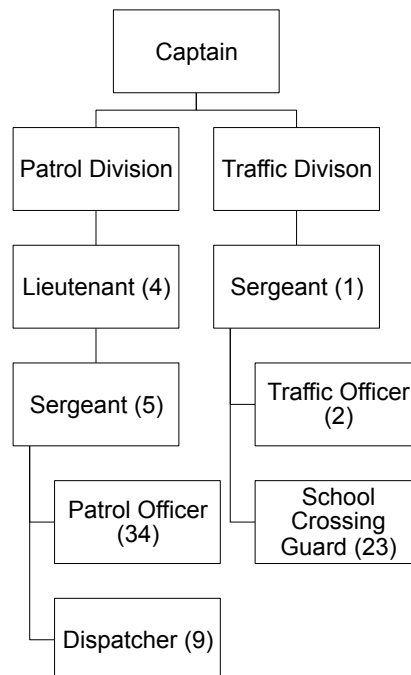
Recommendation: The Town of Watertown should conduct a search throughout the Commonwealth when the next Police Chief is hired.

3. ANALYSIS OF THE FIELD OPERATIONS BUREAU

This chapter focuses on the Field Operations Bureau duties and responsibilities beginning with the patrol division services provided by the Watertown Police Department. Currently, the Field Operations Bureau consists of the Patrol Division and Traffic Division as well as Dispatch Operations.

1. OVERALL ORGANIZATION OF THE FIELD OPERATIONS BUREAU.

The overall organization of the Field Operations Bureau is shown in the following organizational chart.



The Bureau is responsible for providing patrol and traffic operations and ensuring children can cross streets safely while school is in session. As shown above, Patrol represents the largest division of the Field Operations Bureau with 34 Police Officers, 5 Sergeants and 4 Lieutenants.

2. OVERVIEW ORGANIZATION AND ANALYSIS OF PATROL OPERATIONS.

As depicted in the profile, patrol operations is composed of three shifts – Day, First Half, Last Half – with continual operations 24 hours per day, 7 days per week.

Patrol officers are deployed with minimum staffing levels, which vary by time of day and day of week. The following table depicts the current minimum staffing levels associated with patrol.

Shift	Staffing Required	Notes
Day Shift	Officer in Charge (1) Supervisor (1) Admin Officer (1) Patrol Officer (4) Dispatcher (2)	Traffic Officer is not counted toward minimum staffing
First Half Shift Sunday – Thursday	Officer in Charge (1) Supervisor (1) Admin Officer (1) Patrol Officer (5) Dispatcher (2)	Traffic Officer is not counted toward minimum staffing
First Half Shift Friday, Saturday & Eve of Major Holiday	Officer in Charge (1) Supervisor (1) Admin Officer (1) Patrol Officer (6) Dispatcher (2)	Traffic Officer may be counted toward minimum staffing level.
Last Half Shift Monday - Thursday	Officer in Charge (1) Supervisor (1) Admin Officer (1) Patrol Officer (4) Dispatcher (1.5)*	* Dispatcher staffing can drop to a minimum of 1 Dispatcher from 2 at 0300.
Last Half Shift Friday, Saturday & Eve of Major Holiday	Officer in Charge (1) Supervisor (1) Admin Officer (1) Patrol Officer (5) Dispatcher (1.5)*	*Dispatcher staffing can drop to a minimum of 1 Dispatcher from 2 at 0300

Patrol Officers are typically deployed to four (4) Routes with additional officers designated as “general cars” which float among Routes to provide coverage if an officer is engaged in a call for service and to serve as backup officers. The Officer in Charge and Admin Officer work from Headquarters with the OIC supervising dispatch and booking prisoners and the Admin Officer handling walk-in customers and assisting in the booking process as needed.

3. OVERVIEW OF THE MATRIX CONSULTING GROUP'S PATROL STAFFING ANALYTICAL MODEL.

While it would be useful to identify a 'golden rule' of law enforcement staffing needs, the utilization of comparative measures does not provide for an appropriate evaluation of field staffing needs, nor should it be used as the primary basis for a local government to measure the effectiveness of law enforcement services. The Matrix Consulting Group does not use a "per capita" or "per 1,000" ratio as an analytical tool in assessing field staffing needs, for the following reasons:

- Ratios do not consider the seriousness of the workload levels of the jurisdictions being compared. For example, the crime rate should be considered in any comparative analysis of workloads, specifically, the number of serious crimes in a community (e.g. homicide, rape, robbery, aggravated assault, burglary, motor vehicle theft, and larceny).
- Ratios do not consider a jurisdiction's approach to alternative service delivery or "differential law enforcement response." The use of civilian personnel, or lack thereof, to handle community-generated calls for service and other workloads has great potential to impact the staffing levels of sworn personnel. The level / amount of civilians (i.e. community service officers, telephone reporting, online services, etc.) can be used to maximize the efficiency and effectiveness of sworn personnel handling higher priority calls in a community. These resources are not calculated in staffing ratios.
- Ratios do not consider the differences in service levels provided or philosophies with which a jurisdiction may deliver law enforcement services (e.g. community-oriented or problem-oriented policing, a reactive versus proactive approach, the utilization of other regional law enforcement resources in solving problems, etc.). These variables contribute to the inability to compare the necessary number of field patrol personnel through a ratio or per-capita analyses.
- Ratios do not consider other differences which have an impact on regular patrol staffing needs such as the existence of special enforcement / support units as well as operational approaches (e.g. the use of field citations versus transported arrests, manual versus automated field reporting systems, and whether patrol officers are expected to follow-up on certain investigations).
- Ratios do not take into account geographic, meteorological and topographical differences (e.g. square miles of a service area) and other response impediments, which can impact patrol staffing needs.

- Ratios do not take into account changing population characteristics, such as jurisdictions with a significant exodus of commuters, college towns with large seasonal fluctuations in population, or smaller communities adjoining large metropolitan areas with significant public safety workloads.

For these reasons, the project team does not use “per capita” or “per 1,000 residents” ratios as a way for our clients to measure effectiveness in providing law enforcement services, or as a determinant in developing staffing needs. The project team’s analysis of the Watertown Police Department considered the need for a balance of community-generated workloads and the availability of proactive time to generate activities. The following subsections describe this analytical process.

(1) The Analysis of Field Patrol Resource Requirements Should Be Based on Actual Workloads Handled and Appropriate Targets of Proactivity.

The Matrix Consulting Group utilizes a method in which the number of field personnel required is based on an analysis of the unique workloads and service level requirements of a community. In order to evaluate these resources and staffing issues, the project team conducted a data collection and analytical effort focusing on the following:

- Determining community generated calls for service workloads to the level of detail necessary to understand the work volume and the time required to handle such work.
- The field resources used to handle calls for service and proactive workloads based on officer availability levels.
- Deployment and scheduling patterns utilized by the Watertown Police Department.
- Identifying self-initiated police activities and targeting a sufficient amount of time beyond community generated calls for service, otherwise known as “reactive” workload. This time can then be utilized to perform proactive or community-oriented policing services (e.g. special enforcement of high-crime areas, etc.).

- Maintaining a deployment that would help reduce risk and maintain officer safety levels.

Field law enforcement services represent one of the areas of law enforcement operations in which staffing and service levels can be clearly quantified. Several factors determine the level of patrol staffing required in a community, including:

- The community generated call for service demand by time of day, and day of week.
- How officers are utilized in the field, how they are scheduled, and in what manner they are deployed (e.g. one-person versus two-person patrol cruisers).
- How calls for service are managed by a law enforcement agency. Many departments throughout the United States “manage” lower priority calls for service in a number of ways. What these methods of handling calls for service have in common is that they free up the time of trained, professional officers from handling lower priority routine calls so that more of their available time can be spent on calls requiring a higher level of expertise and training. By example, the Watertown Police Department currently allows a minimal number of reports to be taken over the phone by the Admin Officer. These are limited to events where it is not practical for an officer to respond or the complainant to report to the police department such as domestic violence victim that fled their abuser or a citizen on vacation that realizes a crime occurred.
- The level of service desired by the community. This reflects the amount of “proactive” time, or “unobligated” time a community desires. This is a significant factor and primary driver impacting required patrol staffing levels. Unobligated time involves time not spent handling community generated calls for service and reflects proactive time for which an officer is available for community policing, directed or preventive patrol, self-initiated activity (i.e. observations, including suspicious pedestrians or vehicles, etc.), and other approaches for addressing crime problems, quality of life issues, etc.

The project team employed a model based on these decision points in evaluating officer field staffing for the WPD, in terms of workload, service levels, and overall operations. The following section identifies and discusses the various characteristics and elements of the field staffing model, and how proactive (unobligated) time is calculated.

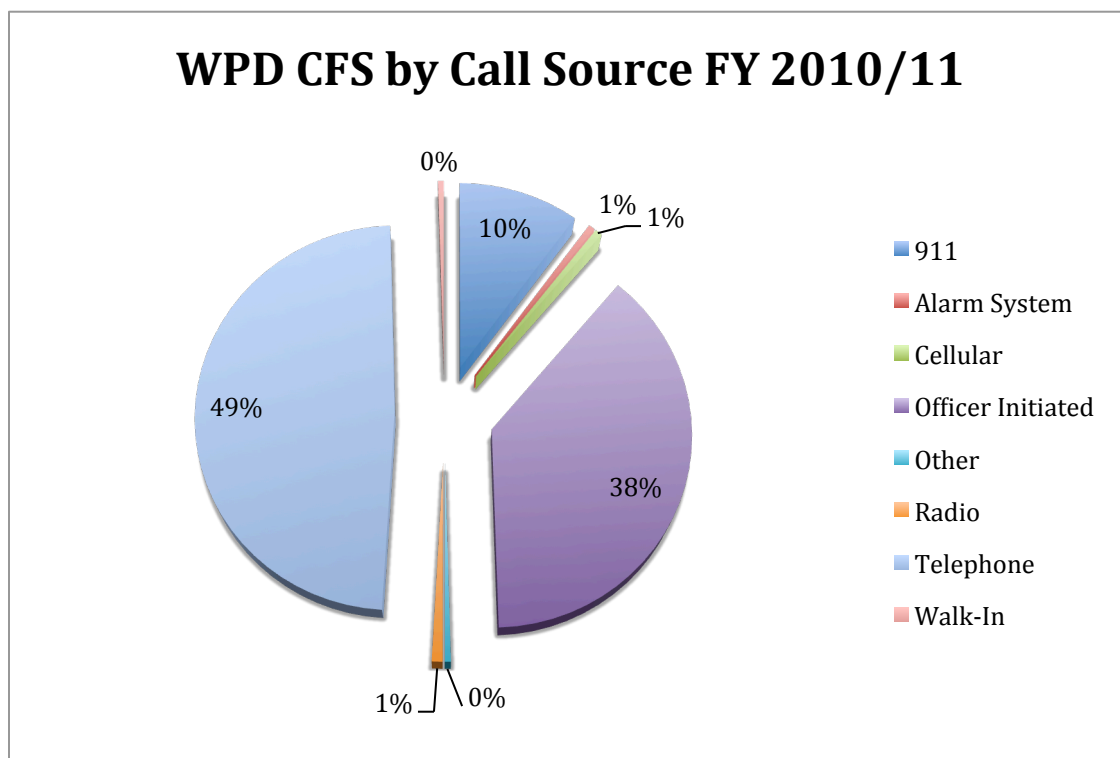
(2) Workload and Data Elements Utilized in the Patrol Staffing Model.

One of the primary responsibilities of a patrol officer is the responding to and handling community generated calls for service. Further, workload related to these calls for service, including reports, arrests / bookings, back-up assistance to another patrol officer on a call, etc., as well as the associated times for these activities, are primary responsibilities of the officer. These elements are foundational in deriving the total field staffing levels required based on desired services levels. These elements are further discussed in the following sub-sections.

(2.1) Patrol Workloads.

The first critical data element required to analyze field resources is to document the primary workloads handled by patrol officers. As stated, one of the primary responsibilities of an officer is to respond to community generated calls for service. These calls certainly do not represent all workload, however, such as officer-initiated events, officer observations in the field resulting in a contact, traffic stops, investigative follow-up, administrative time or other activities reflected in Computer-Aided Dispatch (CAD) or other records. Calls for Service, as defined herein, *represent contacts from the community, generally via E 9-1-1 telephone and 7-digit telephone calls ultimately resulting in one dispatched incident regardless of the number of patrol units sent.* It is critical to understand this fundamental definition in order to comprehend how future analyses are performed in this report. Community generated calls for service **are not** intended to reflect all workload that patrol officers perform. In fact, many law enforcement agencies define “calls for service” as any relevant law enforcement incident, whether initiated by the community or an officer. Watertown Police

Department reports calls for service in this fashion. While this is not atypical, it must be understood that it does not reflect our methodology for staff evaluation. By example, the following pie chart displays the proportion of incidents generated from various sources based on computer records provided to the project team.

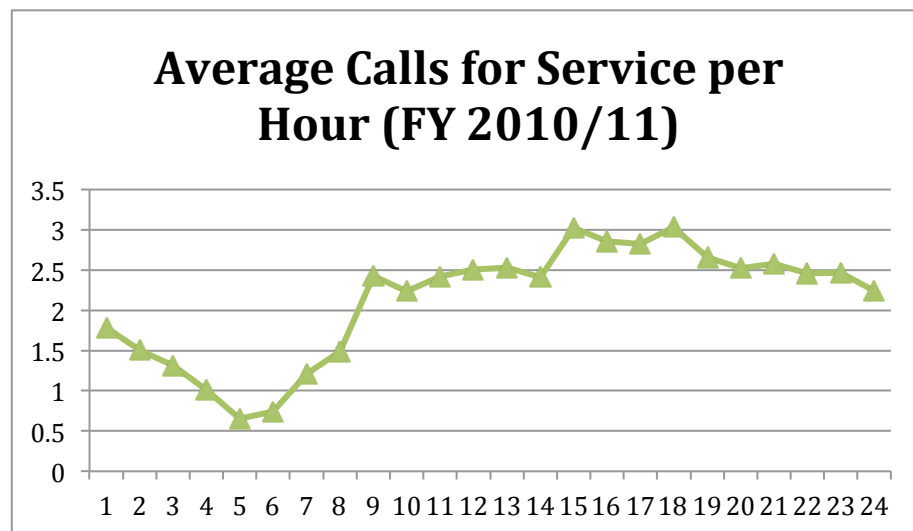


As shown, over half (60%) of incidents are definitively identified by the project team as community generated calls for service (CFS) requiring police response. These community generated calls for service reflect workload that requires a mandatory response from the Department – the community expects service when it telephones the Department. The project team defined community generated calls for service will form the foundation of workload requirements.

Whereas all other police activities are vitally important, community generated calls for service response is the primary core business of a law enforcement agency.

Calls for service and other data are available by analyzing CAD and other records. Based on the definition provided, the following is noted:

- There were approximately 18,578 community generated calls for service handled by the Watertown Police Department from July 2010 through June 2011. Although calls vary by both month and day, this averages approximately 52 calls each day.
- There were approximately 11,550 self-initiated incidents handled by the Watertown Police Department from July 2010 through June 2011. Thus, this type of workload approximates the work dedicated to defined CFS workloads.
- Community generated calls for service distribution by hour, as shown in the graph below, reveal peaks and valleys in call for service workload typical of most law enforcement jurisdictions. Generally speaking, early morning hours have the lowest call for service volumes (this is common) with the lull in the 0400-0700 time period. Highest activity is in early afternoon, with a general pattern of activity of 2.8-3.0 calls per hour from 3:00 pm to 6:00 pm. Like most agencies this peak in calls for service occurs during the evening rush hour. Call volume in Watertown is fairly consistent with the Department responding to between 2 – 3 calls per hour between 9:00 am to midnight.
- Somewhat atypical, the Thursday/Friday time periods are the busier days of the week, with an average of 53 and 53.5 calls, respectively. In the majority of law enforcement agencies, Sunday is the slowest day of the week, but in Watertown Monday is slower with an average of 48.1 compared to 49.7 calls on Sunday.



TOWN OF WATERTOWN, MASSACHUSETTS
Management and Operations Study of the Police Department

Fiscal Year 2010/11 Community Generated Calls for Service by Time of Day and Day of Week

Military Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total	Avg./Hour
0000	144	62	80	61	99	94	112	652	1.8
0100	129	85	54	60	47	53	121	549	1.5
0200	136	32	55	55	54	35	114	481	1.3
0300	76	35	22	49	37	46	105	370	1.0
0400	46	29	16	38	22	46	41	238	0.7
0500	31	39	34	47	36	46	39	272	0.7
0600	53	54	56	65	84	83	47	442	1.2
0700	83	66	58	89	100	97	51	544	1.5
0800	76	118	132	152	154	158	95	885	2.4
0900	89	109	145	120	134	119	99	815	2.2
1000	123	138	120	107	152	132	110	882	2.4
1100	110	123	136	143	146	117	140	915	2.5
1200	139	120	112	140	133	133	146	923	2.5
1300	113	124	163	117	110	127	127	881	2.4
1400	120	143	156	172	165	182	166	1104	3.0
1500	126	148	171	133	178	156	131	1043	2.9
1600	107	147	165	159	158	164	131	1031	2.8
1700	151	143	173	157	175	147	160	1106	3.0
1800	161	134	172	139	137	117	109	969	2.7
1900	117	139	157	141	114	130	124	922	2.5
2000	105	141	130	117	129	159	160	941	2.6
2100	115	133	125	110	140	144	129	896	2.5
2200	126	109	110	109	128	157	160	899	2.5
2300	108	130	87	101	125	142	125	818	2.2
Tot/Avg	2,584 / 49.7	2,501 / 48.1	2,629 / 50.1	2,581 / 49.6	2,757 / 53.0	2,784 / 53.5	2,742 / 52.7	18,578	

(2.2) Handling Time.

A critical component of the Matrix Consulting Group's patrol staffing model is the evaluation of total time spent by patrol personnel handling community generated calls for service. There are a variety of factors that go into determining the time devoted to the "average" call for service. These include the time from call dispatch to call clearance for the primary unit handling the call, the number of calls where a back-up unit (or units) was deployed, how long such back-ups were on scene, report writing time, and jail/booking time. In most instances, data manipulations of CAD computer information or other source data were able to derive these factors for the Watertown

Police Department. In a few instances, assumptions needed to occur based on benchmarks from the project teams experience with other police agencies. Furthermore, information derived from WPD records can be juxtaposed against various benchmarks that the project team has developed relative to average time required for specific tasks. The following table summarizes the important data factors to arrive at handling time.

Factors Involved in Determining How Long a Call for Service Takes

Factor in Call For Service Handling Time	How Data was Determined	Benchmark	WPD Time Required
Primary Unit Handling Time	Based on FY 2010/11 community generated calls for service derived from CAD data	30 minutes/call	19 minutes/call
Average Back-up Units per Call for Service	Based on benchmark standard.	0.50 units/call	0.50 units/call
Average Time Back-up Unit(s) at Scene per Call	Based on benchmark which indicates back-up units on-scene ~75% of Primary Unit Time;	22.5 minutes/call	14.25 minutes/call
Average Time All Units at Scene	Sum of Primary and Average Back-up.	42.5 min/call	33.25 min/call
Report Writing Time	Based on WPD interviews and benchmark data available from other departments.	30 min/report	30 min/report
Report Writing Calls for Service Allocation	Based on data provided by WPD. Reports are written for incidents beyond community-generated calls for service. Further, not all incidents/call receive a report. For calculation purposes, reports must be linked to calls for service. Based on data showing number of reports written by patrol officers from 7/1/10 to 6/30/11 (2,944) and extrapolating total estimated time to write all reports, the total report writing time was proportionally allocated to <i>each</i> community generated call for service (essentially equaling a report 45% of the time a CFS incident). It is assumed reports are written <i>after</i> calls for service are cleared.	25%-50% of CFS will have report.	13.6 min/call

Factor in Call For Service Handling Time	How Data was Determined	Benchmark	WPD Time Required
Jail Run Time Calls for Service Allocation	Based on Jail statistics for WPD and benchmarking. Jail Runs are for incidents beyond community generated calls for service. Further, not all incidents/call require a jail run; indeed, only a small portion result in an arrest. For calculation purposes, jail runs must be linked to calls for service. Based on internal data showing number of arrests performed by patrol officers (843) from July 2010 – June 2011 and total estimated time to book prisoner in the jail (30 minutes), the total jail time was proportionally allocated to <u>each</u> call for service. It is assumed all jail booking are performed <i>after</i> calls for service are cleared, although practically this is not the case in every instance. Based on the data 4.5% of community generated calls for service resulted in an arrest being made.	30-45 minutes per booking	30.0 min/call
TOTAL FIELD TIME DEDICATED PER COMMUNITY-GENERATED CALL FOR SERVICE			49.7 minutes per call

As shown above, the project team determined that the average handling time per call was 49.7 minutes during FY 2010/11. This includes time spent by all units and includes travel time, on-scene time, arrest time, and reporting writing.

(2.3) Officer Availability

Another critical workload element to determine staffing requirements is the amount of annual time available for field personnel to perform their work. A typical employee is paid for 2,080 regular hours per year; however, these employees perform core business duties well below this figure due to scheduled and unscheduled leave, administrative requirements, etc. The tables, which follow, provide the calculation of the “net availability” of police officers in patrol based on data abstracted from a sampling of source documents provided by WPD. The project team defines net availability as the number of hours that an officer (or any other employee) is available to perform their key

roles and responsibilities after the impact of leaves and administrative responsibilities have been subtracted from their gross 2,080 scheduled hours of work.

Leave Type and Hours

Leave Type	Ave Hrs Per Officer Per Year
<i>Baseline Annual Hours Available</i>	<i>2,080.0</i>
Vacation	-220.0
Sick	-31.7
Comp. Time	-17.1
Holiday	-10.3
Department Day	-37.4
Personal	-21.2
Commendation	-5.7
Miscellaneous (injury, union, jury etc.)	-7.3
Average Annual Assignment Hours Available²	1,729.3

The table, above, shows that the “average” Police Officer is deployed during regular work hours 1,729.3 hours per year. The points, below, expand on key issues identified in the table:

- Data show that Police Officers are assigned 1,729.3 hours after all leave categories have been accounted for. This is equivalent to 83% of the available annual time. Net availability includes the impact of all absenteeism factors including personal days off, family medical leave and other factors that take an officer out of the patrol schedule (vacation, sick leave, etc.).
- Based on the project team’s experience, the available hours in Watertown is near the range of 1,700-1,800 hours typically found within most law enforcement agencies.

Although officers are assigned over 1,700 hours per annum after leave, they are not available to perform core business work until various administrative time is subtracted from their assignment, per policy or otherwise. The following table captures these requirements, resulting in an average “net availability” for each officer per year.

² Annual hours available does not include hours that an officer may work on overtime. Practically speaking, an officer can be available far more than 2,080 hours per annum if they wish. However for staff modeling “mandated overtime” is not considered, as it would result in fewer officers needed than might otherwise be necessary. These data were based on random sampling of leave records (excluding FMLA which used the entire database) for FY 10/11. Long-term military leave (deployment) is not considered, as it would skew calculation results.

Administrative Assignment Requirements

Administrative Requirement	Average Hours Per Officer Per Year	Explanation of Information
<i>Average Assignment Hours Available</i>	<i>1,729.3</i>	Based on above calculations.
Meals/Breaks	-215.8	One hour meal and breaks based on interviews.
Vehicle Check/fueling	-71.2	Average of 20 minutes per shift briefing.
Mandated/Essential Training	-58.0	Based on estimated 58-hour in-shift and school/seminar annual training requirements per training records provided.
Net Annual Available Hours After All Leave/Administrative Factors	1,384.3	Final "net availability" calculation.

The project team made assumptions based upon policy and consultation with WPD staff regarding the impacts of administrative responsibilities, training as well as time off factors associated with meals, etc. These assumptions are described below:

- **Meals and Breaks** are calculated at one hour per shift actually worked.
- **Shift Briefing** based on project team review of Daily Log Reports as well as consultation with WPD staff, each shift briefing occurs prior to the scheduled shift and vehicle checks take approximately 15 minutes.
- **Mandated/Essential Training** is a broader estimate based a review of hardcopy training records listing in-service training received.
- **Vehicle Fueling** is established at 5 minutes based on Daily Log Reports.

It should be noted that these administrative requirements are also consistent with most other law enforcement agencies and are not outside of ranges typically seen by the project team.

(2.4) Calculating Resource Needs Based on Available Time.

Upon developing community generated calls for service data and net officer availability information, the final step in determining resource requirements is calculating the proportion of proactive time available to patrol services. In effect, patrol staffing levels are ultimately driven by the patrol officer's time, which can be classified into two

categories—proactive and reactive time. Ultimately, the amount of proactive time is linked to the ability of officers to perform those duties and responsibilities above the basic response to community generated calls for service. Without sufficient proactive or uncommitted time, a patrol operation is severely handicapped in its ability to respond effectively to local and regional crime, traffic, and quality of life issues unique to each community. The following section describes time definitions in further detail.

(2.5) Response-Oriented Patrol Requirements (Also Known as “Reactive or Committed Time”).

Reactive or Committed time, is classified as the handling of community-generated calls for service and the immediate responsibilities linked directly to that specific incidence, including reports, arrests / bookings, back-up assistance to another patrol officer on a call, etc. In effect, reactive time includes the period of work from the point at which a unit responds to a call to the point when a unit “clears for service.” The following points are noted with respect to response-oriented or reactive time.

- This is a primary mission of any law enforcement field patrol force.
- Clearly defined areas of responsibility (e.g., routes) and clearly defined back-up relationships are a core concept for consistent ‘committed time’ service delivery.
- A Department should have clearly defined response policies in place – this includes: prioritization of calls, response time targets for each priority, back-up policies, and supervisor on-scene policies. In the absence of such formal policies, common practice, or ideally ‘best practice guidelines’ can be used.
- This Reactive or Committed time workload in many communities generally makes up an average of between 40% and 60% of each officer’s net available time per shift. This includes the time to prepare reports, transport and book prisoners, and provide field back-up. The concept of Reactive (and Proactive) time is widely acknowledged by various established bodies, including the International Association of Chiefs of Police, Northwestern Universities Police Allocation Model, etc.

The calculation of reactive or committed time is one of the cornerstones to patrol staffing level findings, conclusions and recommendations.

(2.6) Proactive Patrol Requirements (Also Known as “Uncommitted or Unobligated Time”).

The following points are noted with respect to Proactive or Uncommitted time:

- A Department should have clearly defined uses for uncommitted time. Officers should know what they are expected to do with time between calls for service.
- Proactive enforcement addresses all other workloads that are not in response to a community-generated call for service. These include such important services as officer self-initiated activity: proactive or preventive patrol, investigative follow-up, traffic enforcement, etc. It is critical to recognize that all self-initiated activity falls within the uncommitted time category.
- The ‘proactive’ element of field patrol in many law enforcement agencies generally makes up between 40% and 60% of each officer’s day, on average. Typically, less than 30% net proactive time available to patrol staff results in inefficient bundling of available time – i.e., uncommitted time comes in intervals too short to be effectively used by field personnel. Proactive time of more than 50% generally results in less than efficient use of community resources, as it is difficult to effectively manage field patrol personnel with this level of uncommitted time. There are important exceptions, however, to these ratios that can be impacted by such issues as officer safety, response times, etc. For example, very small agencies with an extremely small contingent of field staff must have high levels of proactive time, often in the 60% range, to address response time, officer safety, and other performance-related issues.

The calculation of Proactive or Uncommitted time is the other cornerstone to staffing level findings, conclusions and recommendations. These elements are further discussed in the following sections.

4. ANALYSIS OF PROACTIVE TIME LEVELS INDICATES THAT PATROL HAS SUBSTANTIAL ABILITIES TO BE INVOLVED IN PROACTIVE ACTIVITIES.

This section provides the project team’s analysis of proactive time available to the Watertown Police Department’s Patrol Operations.

(1) Proactive Time Targeting.

The project team developed an analysis of proactive time to assist in the evaluation of current patrol deployment and determine staff resource allocation and, ultimately, requirements. The concept of proactive time is very important in law enforcement; reiterating, it is the amount of time available to field deployed officers after handling community generated calls for service and related workloads. If field personnel are committed to calls for service response a large proportion of the time and have little “unobligated” time, they have little capability to undertake self-initiated activity, impact the root causes of crime and quality of life issues, or to work closely with citizens of the community. Moreover, field personnel with little uncommitted time find it difficult to produce response times that are generally satisfactory. This is particular problematic for emergency responses where life is potentially endangered or property severely jeopardized. Police departments that have developed a problem-oriented or community policing program based on effective use of proactive time typically have an average range of 40% - 45% uncommitted time, but can reach up to 50% or higher dependent upon the unique operating circumstances of the law enforcement agency.

Key factors should be kept in mind when reviewing the analysis of proactive time.

- Proactive time availability was calculated using the community generated calls for service methodology and net availability provided in the preceding sections.
- Proactive time availability is based on year of data between July 2010 and June 2011 and represents a “snap-shot” in time; it may not reflect what is occurring now or what occurred previously, but it can certainly be representative of near-term patrol operations and thus can drive staffing level requirements.
- Proactive time calculations are based on a few fundamental assumptions that might not completely mirror reality. For example, based on the calls for service time calculations it assumes reports and arrests/bookings are equally distributed throughout the 24/7 cycle. This, of course, is extremely unlikely as arrests and

reports ebb and flow dependent upon several variables. Also note that the proactive time calculation assumes that meals and administrative duties are equally distributed and provided throughout a shift. However, these activities are likely put on hold or eliminated until, by example, a call for service backlog can be handled. Despite these assumptions that must be used given the vagaries of patrol workload, proactive time calculations are the soundest methodology for field services staffing and scheduling.

- Proactive time calculations can change depending on the number of patrol officers deployed and assigned to each time period. Officer resources, founded on call for service and net availability data, drive proactive time availability.

The following section describes proactive time availability based on different staff deployment scenarios.

(2) Proactive Time Levels by Time of Day Based on Various Staffing Scenarios.

In order to understand how proactive time can vary, the project team chose various real and theoretical deployment strategies for WPD. Field officer deployments as reflected by both staffing and scheduling options impact proactive time significantly and, by association, the implied ability to perform in the most productive fashion. The sections that follow show hourly proactive time levels and overall proactive time based on different deployment strategies.

(2.1) Proactive Time Levels – Recent Staffing Scenario.

The WPD deploys officers on an eight-hour schedule whereby the same number of officers are essentially scheduled daily with variations in minimum staffing levels dictated by shift and day of week. This scheduling philosophy, combined with the number of officers deployed on each shift, impacts calculated proactive time levels.

The following table provides proactive time calculations based on a recent shift deployment schedule where an average of 4.3 officers were assigned to second half shift, 5.2 to the first half shift and 4.4 to the day shift.

Proactive Time Levels – Officers Deployed FY 2010/11

Military Time	Average CFS	CFS Handling Time (Hrs)	Net Officers Available	Reactive Time	Proactive Time
0000	1.79	1.49	4.30	35%	65%
0100	1.50	1.25	4.30	29%	71%
0200	1.32	1.10	4.30	25%	75%
0300	1.01	0.84	4.30	19%	81%
0400	0.65	0.54	4.30	13%	87%
0500	0.75	0.62	4.30	14%	86%
0600	1.21	1.00	4.30	23%	77%
0700	1.49	1.24	4.30	29%	71%
0800	2.43	2.02	4.40	46%	54%
0900	2.23	1.85	4.40	42%	58%
1000	2.42	2.01	4.40	46%	54%
1100	2.51	2.08	4.40	47%	53%
1200	2.53	2.10	4.40	48%	52%
1300	2.41	2.00	4.40	45%	55%
1400	3.03	2.51	4.40	57%	43%
1500	2.86	2.37	4.40	54%	46%
1600	2.83	2.35	5.20	45%	55%
1700	3.03	2.51	5.20	48%	52%
1800	2.66	2.21	5.20	42%	58%
1900	2.53	2.10	5.20	40%	60%
2000	2.58	2.14	5.20	41%	59%
2100	2.46	2.04	5.20	39%	61%
2200	2.46	2.04	5.20	39%	61%
2300	2.24	1.86	5.20	36%	64%
Average	2.12	1.76	4.60	38%	62%

The following is noted regarding the data in the table.

- As shown above, proactive time levels vary considerably throughout the 24-hour period. Overall, proactive time is highest in the latter half of the Second Half Shift during the early morning hours, with 87% proactive time at 4:00 a.m. to 5:00 a.m. It is fairly common to see high proactive time levels during these hours given the need to provide a minimum level of staffing coverage for officer safety and the lower community generated workload levels typically found during these hours.
- Proactive time is lower during much of Day and First Half Shift, but typically within acceptable ranges. The lowest proactive time period is at 2:00 p.m., at 43%, which is at the lower end of the acceptable proactive time range.
- Overall proactive time for the 24-hour period is calculated at 62% – at the suggested maximum of the proactive targets noted previously, but with wide variations dependent upon the hour of the day.

(2.2) Proactive Time Levels – Minimum Staffing Scenario.

The following table provides proactive time calculations based on the actual minimum staffing levels reflected in the Profile Chapter, whereby minimum staffing levels of varies depending on the particular shift and the traffic officer is not included in the minimum staffing. For the purposes of this analysis we will utilize the lowest minimum staffing levels, as that is a typical staffing level shown on daily rosters.

Proactive Time Levels – Minimum Staffing Deployment

Military Time	Average CFS	CFS Handling Time in Hours	Officers Deployed	Reactive Time	Proactive Time
0000	1.79	1.49	4.00	37%	63%
0100	1.50	1.25	4.00	31%	69%
0200	1.32	1.10	4.00	28%	72%
0300	1.01	0.84	4.00	21%	79%
0400	0.65	0.54	4.00	14%	86%
0500	0.75	0.62	4.00	16%	84%
0600	1.21	1.00	4.00	25%	75%
0700	1.49	1.24	4.00	31%	69%
0800	2.43	2.02	4.00	51%	49%
0900	2.23	1.85	4.00	46%	54%
1000	2.42	2.01	4.00	50%	50%
1100	2.51	2.08	4.00	52%	48%
1200	2.53	2.10	4.00	53%	47%
1300	2.41	2.00	4.00	50%	50%
1400	3.03	2.51	4.00	63%	37%
1500	2.86	2.37	5.00	47%	53%
1600	2.83	2.35	5.00	47%	53%
1700	3.03	2.51	5.00	50%	50%
1800	2.66	2.21	5.00	44%	56%
1900	2.53	2.10	5.00	42%	58%
2000	2.58	2.14	5.00	43%	57%
2100	2.46	2.04	5.00	41%	59%
2200	2.46	2.04	5.00	41%	59%
2300	2.24	1.86	4.00	47%	53%
Average	2.12	1.76	4.33	41%	59%

The following is noted regarding the data in the table.

- As shown above, proactive time levels again vary considerably throughout the 24-hour period. Sufficient proactive time is available throughout the 24-hour period with one exception—2:00 p.m. to 3:00 p.m. Further, proactive time is generally minimal in the late afternoon to early evening hours (1500-1800 hours).

- Overall proactive time for the 24- hour period is calculated at 59% – within the high range of the targets noted previously.

As shown above, the historical minimum staffing deployment levels of four to five officers per shift provides proactive time levels exceeding targets in some hour blocks and near minimum levels in other time blocks.

5. THE PROJECT TEAM'S STAFFING ANALYSIS SHOWS THAT THE WPD CAN PROVIDE A HIGH LEVEL OF SERVICE WITH THE CURRENT NUMBER OF OFFICERS ASSIGNED TO PATROL.

The project team calculated the patrol staffing needs with the Matrix Consulting Group's model utilizing a range of two proactive targets – 40% and 45%. This range allows the Town to compare the staffing required to meet both targets as well as to evaluate the impacts of the alternative levels of proactive time. The project team utilized FY 2010/11 calls for service. The exhibit on the following page shows the results of the Matrix Consulting Group's patrol staffing model.

Watertown Police Department
Patrol Officer Staffing Calculation, FY 2010/11

1. COMMUNITY GENERATED WORKLOADS	Workload Factor
Calls for service (FY 2010/11)	18,578.00
Handling Time Primary Unit	9,289.00
Back-Up Rate	0.50
Estimated Back-Up Unit Time per Call (75% of primary)	0.38
Arrests (Actual based on CAD disposition)	843
Estimated Time to Complete Arrest (Hrs)	0.50
Reports (Actual based on CAD disposition)	2,944.00
Estimated Time to Complete Report (Hrs)	0.66
Total Handling Time per Call (Hrs.)	0.83
TOTAL TIME REQUIRED TO HANDLE COMMUNITY GENERATED WORKLOADS (HRS.)	54,240.64

**2. TIME FOR PREVENTIVE PATROL AND
SELF INITIATED ACTIVITIES (@ ALTERNATIVE
LEVELS OF PROACTIVITY), IN HRS.**

• 45% of Available Time	12,602
• 40% of Available Time	10,268

**3. TOTAL TIME REQUIRED TO HANDLE BOTH
REACTIVE AND PROACTIVE ACTIVITIES (IN HRS.)**

• 45% of Available Time	98,619
• 40% of Available Time	90,401

4. PER OFFICER AVAILABILITY

Est. Availability	2,080
• Net hours worked (after all leaves, training and court) --	412
• Net hours lost on shift (meals / breaks / maintenance)	287
Net hours worked each year	1,384

5. POLICE OFFICERS REQUIRED TO HANDLE WORKLOADS

• 45% of Available Time	20
• 40% of Available Time	19

**6. POLICE OFFICERS REQUIRED GIVEN EST. TURNOVER (5%)
AND TIME NEEDED TO ACADEMY AND FIELD TRAIN**

• 45% of Available Time	23
• 40% of Available Time	21

The following points highlight the analysis shown above:

- As shown above, the project team estimates that approximately 20 Officers are needed within patrol (not including admin officers) to handle community generated workloads and provide for 45% proactive time. To meet a 40% proactive time target, the Department needs 19 Officers.
- Because patrol is a 24-hour operation, Officer turnover has a significant impact on the ability of Police Departments to meet targeted service levels. The project team estimated a turnover rate of 5% within the WPD. In addition, we estimate that approximately 1 year is spent recruiting, testing, and training a new officer. As a result, approximately 1 years worth of time is lost for each officer separation. Consequently, in order to meet targeted staffing within patrol, the WPD would need 23 Officers at 45% proactive time and 21 Officers at 40%. Currently, 29 Officers are assigned to patrol (not including admin officers). This provides for sufficient coverage due to turnover.

Recommendation: The project team finds that current staffing levels provide for a high level of service and should remain the number of authorized positions in the Police Department budget.

6. THE PROJECT TEAM'S PROACTIVE TIME ANALYSIS SHOWS PATROL DEPLOYMENT ALTERNATIVES CAN BE CONSIDERED.

There are several issues to be considered beyond the consideration of proactive time availability. Balancing proactive time throughout the 24-hour period with appropriate staffing to ensure officer safety is one important objective. How officers use proactive time is another consideration. Beyond these framing issues, current authorized staffing levels for Patrol reflect that WPD is currently within the reasonable range of staffing levels required to efficiently and effectively perform proactive community-response policing services in most instances. That is, there should be no assumption that WPD patrol operations at authorized staffing levels are severely understaffed based on workload requirements. Ultimately however, other important considerations need to be made. As shown in the prior section, the various proactive time models with varied staffing levels shows an imbalance in proactive time across the time periods with overall proactive time averages meeting or exceeding the 40%-45% target nearly every hour of the day overall. The following sections discuss various deployment decisions for consideration beyond proactive time elements.

(1) Consideration for Officer Safety Issues Can Have an Important Impact on Staffing Requirements.

As stated previously, the availability of sufficient proactive time to perform typical patrol officer duties and responsibilities is a primary driver in developing staffing levels. Implied in these staffing levels is sufficient officer back-up on various call types to help ensure officer safety. Re-visiting the methodology to arrive at proactive time shows two important considerations relative to officer back-up:

- The generally accepted practice for back-up officers on community generated

call for service is 1.50 units per call.

- Typically back-up units spend approximately 75% of the time on-scene with the primary unit.

In sum, if these two variables are not possible due to staffing levels there can be a potential impact on both the impression and actuality of officer safety, despite the availability of sufficient proactive time. The following is noted regarding the employee survey results:

- When presented with the question regarding, “Availability of Back-up for Officer Safety” 83% of respondents rated back-up officer availability as good or excellent.
- In contrast, the majority of patrol (62%) disagreed with the statement, “We have the staff we need to perform safely and effectively during incidents.”

Clearly, employee feedback demonstrates concern with officer safety and, but not regarding back-up availability. In sum, this perception is likely due to community characteristics of Watertown as described below:

- Watertown is adjacent to Boston, one of the larger metropolitan areas in the United States. Such proximity has both an impact on incidents that can and do occur within Watertown and perceptions regarding activity and officer safety.
- Despite such proximity, Watertown has relatively low call for service volumes and a comparatively low Part I crime occurrence history. As a consequence, Watertown workload indicators do not justify a large police force. Smaller police agencies generally suffer from the perception of officer safety and back-up issues.
- Despite the Watertown community’s profile, there are many call-types, not of a felony nature, that officers can benefit from a multiple unit response such as fights, domestic disturbances, suspicious circumstances, etc. In instances where risk is perceived or an event is impacting community quality of life, officer back-up is very desirable.

In effect, Watertown PD suffers from what is typically experienced by smaller police forces throughout the nation that operate independently. That is, the

independence of a small department brings perceived safety risk. This is the nature of having a “safe” community. In summary, beyond proactive time calculations, attempts should be made to develop an organization for patrol staff to feel safe in the field, and believe sufficient resources are available in the event of a major occurrence requiring a multiple unit police response.

(2) The 3-12 Shift Schedule Should Be Considered for Patrol.

Various shift schedules can be implemented in a Department, from a 5-day, 8-hour work-week, to the four-day, 10-hour work week to the 12-hour deployment schedule. The most cost effective are those schedules that are equally divisible in a 24-hour period (such as WPD’s eight-hour program). The staffing requirements for a 9-, 10- or 11-hour schedule increases the number of staff needed on duty, and where some effectiveness might be gained by the shift overlaps provided in these types of schedules, it is more costly and thus potentially less *efficient* than schedules equally divisible in a 24-hour time period. As a result, to maintain WPD’s scheduling efficiency the project team evaluated another equally efficient schedule: the 12-hour deployment schedule that is receiving increasing popularity with many law enforcement agencies. The project team believes that implementation of a 12-hour shift program might solve some important issues currently experienced by the Town.

The following beneficial generalities can be noted about the 3/12 shift schedule. This information coincides with a recent study performed by Lincoln, Nebraska, including an officer survey of LPD patrol regarding potential issues associated with their implementation of a 3/12 schedule. The survey noted:

- 100% of the respondents felt they were able to perform all police functions on the 3/12 schedule.

- 87% disagreed that they had become so tired during a shift that they were unable to function normally or safely.
- When asked about how rested they felt after returning from days off, 82% of officers said they were “very rested,” 9% percent felt “somewhat rested,” and an additional 9% found no difference from previous scheduling alternatives.
- When queried about their ability to work additional hours beyond a 12-hour shift, 42% felt there was no difference, 40% said they were “somewhat less able” to work, and 18% were “significantly less able” to work overtime.
- Positive mood and disposition changes had been noticed by the families of 77% of the respondents.
- Because a 3/12 program allows officers and their supervisors to always work identical shifts (often not the case on other schedules), approximately 50% of officers reported an improvement in their level of supervision, and 100% of surveyed employees were very satisfied with the “squad concept”—always working with the same sergeant and the same group of officers.³

The following provides an example of a 12-hour schedule’s impact on proactive time. The example deploys a full contingent of 28 patrol officers in a two-shift schedule from 0700-1900 and 1900-0700 hours with equal distribution on all shifts and the same factor of 83% availability of patrol staff.

³ All results found in the August 2008 article from *The Police Chief* magazine.

Proactive Time Levels – 28 Officers Deployed Over Two 12-hour Shifts

Military Time	Average CFS	CFS Handling Time in Hours	Officers Scheduled	Net Officers Available	Reactive Time	Proactive Time
0	1.79	1.49	7	5.8	26%	74%
100	1.5	1.25	7	5.8	22%	78%
200	1.32	1.1	7	5.8	19%	81%
300	1.01	0.84	7	5.8	14%	86%
400	0.65	0.54	7	5.8	9%	91%
500	0.75	0.62	7	5.8	11%	89%
600	1.21	1	7	5.8	17%	83%
700	1.49	1.24	7	5.8	21%	79%
800	2.43	2.02	7	5.8	35%	65%
900	2.23	1.85	7	5.8	32%	68%
1000	2.42	2.01	7	5.8	35%	65%
1100	2.51	2.08	7	5.8	36%	64%
1200	2.53	2.1	7	5.8	36%	64%
1300	2.41	2	7	5.8	34%	66%
1400	3.03	2.51	7	5.8	43%	57%
1500	2.86	2.37	7	5.8	41%	59%
1600	2.83	2.35	7	5.8	41%	59%
1700	3.03	2.51	7	5.8	43%	57%
1800	2.66	2.21	7	5.8	38%	62%
1900	2.53	2.1	7	5.8	36%	64%
2000	2.58	2.14	7	5.8	37%	63%
2100	2.46	2.04	7	5.8	35%	65%
2200	2.46	2.04	7	5.8	35%	65%
2300	2.24	1.86	7	5.8	32%	68%
Average	2.12	1.76	7	5.8	30%	70%

The following is noted regarding the data in the table.

- Proactive time shows different patterns just as the 29-officer eight-hour shift with a higher average proactive time of 70% compared to 62%.
- Given two shifts, there are more (net) officers deployed, on average throughout the day. In the busier day time and early evening time in the 12-hour shift example proactive time never falls below 50% when compared to an 8-hour shift where a low proactive rate of 42% occurred between 2:00 and 3:00 pm. In effect, this can improve the perception of officer safety and back-up availability during these busier times without changing patrol staffing levels.

In effect, the 12-hour shift program offers some trade-offs compared to the eight-hour shift, to include more resources during busier times of shifts. Whether this

improves the perception of officer safety and available back-up is unknown, despite the fact that significant proactive time is available in many instances to provide such back-up.

From an exclusively administrative and fiscal perspective, one of the greatest benefits associated with the 12-hour shift program is the ability to field fewer staff resources than other shift counterparts. This fact is noted in the following table, which illustrates how many staff positions are necessary to cover one “24/7/365” fixed shift position based upon the type of shift schedule implemented.

Impact of Shift Types on Staffing Needs

SHIFT TYPE:	8 hr	9 hr	10 hr	11 hr	12 hr
Target Staff / Hr	1	1	1	1	1
Shift Schedule (Hrs)	8	9	10	11	12
Shift Factor ⁴	71%	64%	57%	52%	50%
Shifts / Day	3	3	3	3	2
Total Hours Covered / Day	24	27	30	33	24
Shift “Inefficiency”	0%	13%	25%	38%	0%
Staff Required	4.2	4.7	5.3	5.8	4.0

As shown by the table, the 4/10 work schedule is 25% less cost-effective than either the 5/8 or 3/12 schedules. The worst schedule from a cost perspective is the 11-hour shift program. Interestingly, the 12-hour shift schedule is the most cost effective from the total number of staff positions required because of the additional 104 work hours per annum that are potentially provided by that staff position. In instances where this additional time is not worked, the “efficiency” of the 12-hour shift is equivalent to the 8-hour shift.

In addition to the noted efficiencies, the 12-hour shift program has the added advantage of deploying the total personnel resource contingent over two shifts as

⁴ Shift Factor is the number of days scheduled for work versus days to be covered in the work period. By example, 5-days/7-days = 71%.

opposed to three shifts. As a consequence more personnel are available on a shift-to-shift basis in a 12-hour shift than any counterpart shift schedule.

Given these facts, what ultimately results is that, barring any other variables; the same level of production can be achieved with fewer staff resources in a 12-hour shift than other shifts of different lengths. This holds true in any industry, including law enforcement. It is for this reason that many municipalities are implementing 12-hour shift programs in their law enforcement agencies, particularly those departments of smaller size.

In summary, the greatest cost-savings impact a 12-hour shift program can have is the subsequent reduction of personnel resources while generally achieving appropriate service levels. It must be recognized that the greatest fiscal benefits associated with a 12-hour shift schedule are related to its ability to impact staff resource requirements compared to other compressed scheduling alternatives. For example, the following table shows a 12-hour deployment schedule for WPD with 24 officers—five less than the present patrol shift contingent.

In implementing such a schedule the Department will need to monitor, as they currently do, the factors that could lead to excessive utilization of staff, such as the number of paid details worked in a given period.

Proactive Time Levels – 24 Officers Deployed Over Two 12-hour Shifts

Military Time	Average CFS	CFS Handling Time in Hours	Officers Scheduled	Net Officers Available	Reactive Time	Proactive Time
0	1.79	1.49	6	4.98	30%	70%
100	1.5	1.25	6	4.98	25%	75%
200	1.32	1.1	6	4.98	22%	78%
300	1.01	0.84	6	4.98	17%	83%
400	0.65	0.54	6	4.98	11%	89%
500	0.75	0.62	6	4.98	12%	88%
600	1.21	1	6	4.98	20%	80%
700	1.49	1.24	6	4.98	25%	75%
800	2.43	2.02	6	4.98	41%	59%
900	2.23	1.85	6	4.98	37%	63%
1000	2.42	2.01	6	4.98	40%	60%
1100	2.51	2.08	6	4.98	42%	58%
1200	2.53	2.1	6	4.98	42%	58%
1300	2.41	2	6	4.98	40%	60%
1400	3.03	2.51	6	4.98	50%	50%
1500	2.86	2.37	6	4.98	48%	52%
1600	2.83	2.35	6	4.98	47%	53%
1700	3.03	2.51	6	4.98	50%	50%
1800	2.66	2.21	6	4.98	44%	56%
1900	2.53	2.1	6	4.98	42%	58%
2000	2.58	2.14	6	4.98	43%	57%
2100	2.46	2.04	6	4.98	41%	59%
2200	2.46	2.04	6	4.98	41%	59%
2300	2.24	1.86	6	4.98	37%	63%
Average	2.12	1.76	6	4.98	35%	65%

For comparative purposes, this 24 officer 12-hour schedule can be compared against data from the eight-hour schedule where 29 officers are deployed and one officer is assigned the desk. This is a recent situation under which officer-safety and back-up availability would be perceived as most comparable.

SHIFT TYPE:	# Officers	Avg. Proactive Time	Avg. Net Officer Availability	# of Time Blocks Proactive Time Exceeds 50%
8-hour Shift	29	63%	4.6	22 of 24
12-hour Shift	24	65%	4.9	21 of 24

The development of a 3/12 shift schedule that meets the specific needs of the WPD is beyond the scope of this report; there are numerous alternatives that can be designed. Changing work schedules must be performed in consultation with bargaining units to help ensure an acceptance and a smooth transition. However, the following is representative of some varied approaches that can be taken when designing a 3/12 shift schedule:

- A 3/12 shift schedule can be developed that allows for rotating days off, thereby allowing all officers to have some weekend time off (similar to the philosophy of WPD's rotating 8-hour schedule). One schedule would be: work two days, then take two days off, then work three days, and then take two days off, then work two days again, and then take three days off. The cycle then begins again.
- A 3/12 shift schedule can be developed that allows for fixed days off, thereby allowing officers to have a consistent time-off schedule. By example, one team works three consecutive days the first week with four days off and four consecutive days the second week with three days off. A counterpart team works in the opposite fashion (four work days, followed by three work days the second week). This results in an 84 hour schedule every two weeks, whereby the extra four hours can be provided in flex time where officers are allowed to take it at any time during the pay period, in whatever increments they chose, as long as it had supervisory approval; banked to allow for extra leave time; paid on an overtime or straight-time basis; etc.

There are numerous 3/12 shift schedules that can be designed to meet the unique needs of WPD. Through a collaborative effort between management and union representatives, this 3/12 shift schedule can be developed accordingly.

In summary, based upon the totality of data provided herein, the following findings with respect to patrol deployment and patrol deployment alternatives are relevant.

- Proactive time availability suggests that there are no under-staffing issues in WPD Patrol Services and opportunities exist to reduce staff if fiscally necessary.
- Proactive time, under many circumstances, is near the upper end of the recommended range.

- Although the approximate 60% proactive time average exceeds the suggested range of 40%-50%, given the unique profile of the community as discussed previously proactive time is only one variable that can be considered.
- There is concern among some patrol personnel that officer safety is an issue. This perception is generally typical of smaller police agencies.
- To potentially mitigate this perception, implementation of a 12-hour shift program may prove valuable. This will provide more officers during busier time periods of the day with minimal impact elsewhere in the schedule (using existing resources).
- In the future, field supervisors and police officers should share the same shift structure regardless of the shift selected.

It is feasible to implement a 12-hour shift schedule and reduce patrol resources marginally with probable minimal impact to service delivery and officer safety / back-up availability. While such reductions must be viewed with caution, in eras of fiscal crisis it can be considered.

Recommendation: Give strong consideration to implementing the 3/12 shift schedule for all of patrol services.

7. TRAFFIC ENFORCEMENT AMONG DEDICATED TRAFFIC ENFORCEMENT STAFF APPEARS PRODUCTIVE THOUGH THERE ARE ISSUES WITH PATROL OFFICERS' PARTICIPATION IN THESE EFFORTS.

As noted in the Profile Chapter, there are two town-wide Traffic Officers with one assigned to the day shift and one assigned to the first half shift. The daytime traffic officer is typically assigned to court to handle traffic cases being heard. This results in the first half traffic officer handling much of the traffic enforcement efforts in Watertown and patrol officers also focusing on traffic enforcement during their tour of duty.

Metrics associated with Traffic Enforcement are discussed in the section below.

(1) Moving Citation and Warnings Issued.

One important measure of traffic enforcement productivity, particular for a traffic unit, is the number of citations issued per field deployment hour. Based on calendar 2010 data, the following table shows the citation production for Patrol Services:

Patrol Services – Vehicle Citations and Warnings, FY 2010/11

Traffic Cites/Warnings	Injury Accidents/DUI	Ratio of Citations to Accidents/DUI
9,935	342	1:29

Based on the project team's research over two decades, we have discovered that a productive and dedicated Traffic Unit should be able to generate at least 35-40 citations for every injury accident and DUI arrest. The 1:29 ratio in Watertown suggests that patrol officers are marginally below where they should be in traffic enforcement efforts.

(2) Patrol Personnel Need to Use More Proactive Time Dedicated to Traffic Enforcement Activities.

Our analysis shows that the two staff assigned to Traffic Enforcement are productive writing citations and warnings. However, there are only two of them. On the other hand, patrol personnel are *not* highly involved in traffic enforcement activities. Given the levels of proactive time available and the seriousness of traffic safety issues in the Town, this should be a high priority proactive activity for most officers on most shifts.

8. SPECIAL ENFORCEMENT AND COMMUNITY POLICING IN WATERTOWN HAVE BEEN IMPACTED BY REDUCTIONS IN THE PAST THREE BUDGET CYCLES.

Prior to the recession the Watertown Police Department had resources dedicated to proactive policing that have been eliminated due to the lack of fiscal resources in the Town. These resources included the following:

- Two School Resources Officers.
- A Police Officer assigned to a regional narcotics task force.
- Three Community Policing Officers.
- Two traffic enforcement officers.

The Department during this period also lost two Detectives.

There is no question that the Town's overall law enforcement program has been impacted by these personnel losses. Long term, as additional revenues become available to the Town they should incrementally be evaluated according to the highest needs at that time. However, as the analysis in this report has demonstrated there is much opportunity to utilize existing resources to address proactive community needs in selected areas, including:

Proactive Service Area	Opportunity for Patrol?
School Resources	No, dedicated resources are needed to address program, school, student and parental service needs.
Regional Task Forces	No, dedicated resources are required for longer periods than are available within a shift. Given that the Town continues to participate in one task force, these regional resources should be maximized to the extent possible to the benefit to the Town.
Dedicated Community Policing	Yes, the programs and services provided by dedicated community policing officers can be assumed by officers assigned to Patrol if all are involved.
Traffic Enforcement	Yes, traffic enforcement is a legitimate community policing service and should show much greater efforts than have been demonstrated.

Recommendation: Continue to participate in regional task forces to the extent that these can be supported through local funding and expect great participation in community policing efforts by staff assigned to Patrol.

9. THE POLICE DEPARTMENT NEEDS TO MONITOR AND ADJUST TO UNANTICIPATED POSITION VACANCIES.

As a small police department, the impacts of position vacancies can be great because the loss of even one person represents a large proportion of the resources authorized. While “normal” availability levels in a public sector organization for position vacancies and long term absences (not vacation and sick leave) can be expected to average up to 10%, in Watertown now these factors are much higher because of:

- 2 in field training.
- 1 in military leave.
- 4 retirements in the second half of FY 2012.
- 1 long term disability.
- 1 vacancy for another separation reason.

These factors, though temporary, are twice the expected level and are impacting the need for overtime. The Department needs to do what it can to anticipate long term of permanent vacancies as part of its workforce planning efforts.

Recommendation: Because of the potential impacts in the need for overtime, monitor vacancy levels which exceed a normal range of about 10% per year which will lead to higher levels of overtime.

10. PATROL SERVICES FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.

Based on our data collection, review, and analysis, the following patrol services findings conclusions and recommendations are offered.

- In consideration for officer safety and back-up availability, the proportion of proactive time available cannot serve as the exclusive driver in developing WPD

patrol staffing levels. Despite high levels of proactive time, the Department's small size precludes significant staff reductions under existing operating protocols.

- Under eight hour patrol shift operations, the existing staffing levels of 29 patrol officers should be maintained. Optionally, one position could be eliminated from First Half Shift reducing staffing to 28 in patrol.
- A 12-hour shift program should be strongly considered for patrol operations. This will align supervisory teams with shift squads ensuring consistent supervision, potential enhanced camaraderie, etc.
- Under a 12-hour shift program the Town may cautiously consider patrol staffing reductions from 29 to 24 patrol staff with probable minimal impact on overall service delivery and officer safety. This can potentially save \$338,180 annually in salary and benefits although new contractual terms and conditions as part of meet-and-confer may impact this amount.
- Currently, field supervisors are on different schedules than line policies officers. The Department should strive to achieve the goal of consistency in field supervision by putting supervisors and line personnel on the same shifts.

The following recommendations are made:

Recommendation: Maintain existing patrol staffing levels of 29 officers if patrol operations continue under the 8-hour program. Maintain existing sergeant and lieutenant staffing contingent in patrol.

Recommendation: Give strong consideration to implementing the 3/12 shift schedule for all of patrol services. In collaboration with union and management representatives, design a 3/12 shift schedule that meets the unique needs of the WPD. Under 12-hour schedule operations, it would be possible to eliminate five (5) patrol officers from the field at an estimated annual savings of \$338,180 annually.

Recommendation: The Department should strive to get supervisors on the same schedule as line police officers to achieve consistency in field supervision.

11. DISPATCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.

Currently, Watertown Police Department staffs the dispatch center with nine (9) dispatchers. The center is supervised by the one duty Patrol Lieutenant who offices

immediately adjacent to the center. The following duties are handled by Watertown Dispatchers:

- Answer and Dispatch 9-1-1 Emergency calls for Police, Fire and EMS response.
- Prepare daily roster for patrol.
- Answer incoming non-emergency calls for the Police Department.
- Run License plates for wanted during traffic stops.
- Run criminal history checks on prisoners being booked into the holding facility.
- Maintain emergency call lists for businesses and Watertown personnel.
- Maintain copies of active restraining orders, stolen vehicles and missing persons.
- Serve as back-up for admin officer at front counter.

Each shift is staffed with a minimum of two (2) dispatchers. Patrol officers or Admin Officers can fill staffing vacancies in the dispatch center, but there must be a minimum of one fully trained dispatcher on duty at all times. Like most small dispatch agencies the minimum staffing is derived from an officer and firefighter safety perspective and not on workload in the center.

For the next few months unusual circumstances among dispatch staff will impact the need for overtime. Specifically:

- One dispatcher will be out for about 8 weeks because of a medical issue.
- The Department is about to hire two (2) dispatchers who will need to go through training during which their positions will need to be covered through overtime of existing staff.
- Another dispatcher is on the list to become a police officer and may be lost in the near term.

Unanticipated overtime, then, should be expected, though the amount depends on events which cannot at this point be exactly predicted.

The Town and Department are attempting to implement a program in which part-time temporary employees are utilized in the dispatch center. The use of part time temporary dispatchers is widely accepted in the industry and its use in Watertown is encouraged.

Recommendation: Continue with the implementation of part time temporary dispatchers.

(1) There Are No Established Performance Benchmarks in the Dispatch Center For Dispatching Priority One Calls for Service.

Currently the dispatch center operates without benchmarks for timely dispatching of priority one calls for service, for example:

- That a dispatcher should be able to dispatch 90% of Priority One calls within 60 seconds of receiving the call).
- For a person placing a 9-1-1 call for service the time of call is when they establish how long emergency response takes to arrive.

Establishing these benchmarks allows review of dispatcher performance and enhances delivery of emergency services as police and firefighters will have “improved” response times as a result of monitoring and improving dispatching times.

(2) Emergency Medical Dispatching (EMD) is State Mandated in Massachusetts Beginning in 2013.

The State of Massachusetts passed a requirement that all dispatch centers with the responsibility of dispatching Emergency Medical Service (EMS) calls must provide EMD instructions to the caller. This will require increased training for dispatch personnel and the procurement of an appropriate EMD system to implement in the dispatch center. The Department should begin to implement this system as soon as practical to ensure all dispatchers are trained and functional in EMD operations prior to the mandate taking effect.

(3) The Watertown Police and Fire Departments Needs to Focus on “Customer Service” Issues with Respect to Emergency Communications.

The Watertown Police Department dispatches for the Watertown Fire Department, a public safety practice which this project team supports. However, issues have arisen with respect to resolving problems dispatching some calls, use of air time, explaining changes in the system which need to be addressed in the future. The Police Department, as a result, should take the lead in the following:

- Work with the Fire Department to develop a ‘performance contract’ for service which would cover such issues as:
 - Ring times.
 - Dispatch times.
 - Problem resolving techniques.
 - Reporting and review meetings.
- Develop measurable performance measures in support of the contract.
- Create a users group with representatives of both departments to address and resolve issues when they arise. This group should meet no less frequently than quarterly.
- Report back to the Town Manager on an annual basis on the effectiveness of the service and working relationship.

These measures in other jurisdictions have positively addressed perceived and real problems in joint dispatching working relationships.

Recommendation: Develop ‘customer service’ approaches to address and resolve problems in joint dispatching.

(4) Watertown Should Consider Regional Consolidation of Dispatch with Neighboring Agencies.

The maintenance of an emergency communication center poses high personnel and infrastructure (building, radios, CAD, etc.) costs on a community. Small agencies such as Watertown often staff the center based on officer and firefighter safety needs rather than on the amount of work required in the center. This is especially true on the last half shift.

To reduce the cost of providing emergency communications to Watertown, the consolidation of dispatch services with neighboring communities should be considered. This will allow staffing to be based on need and allow dedicated call-takers and dispatchers to provide an improved level of service to both the caller and emergency field personnel.

There are, however, several issues that must be considered prior to regionalization or consolidation of dispatch services. These include:

- Are holding facility operations integrally related to the delivery of dispatch? While this is not the case in Watertown, often dispatchers monitor detainees, process booking paperwork and assist in prisoner release.
- Is there strong support from area Town / City Managers? Often the interest of maintaining local control takes precedence over the opportunity to improve service delivery at a lower cost. Without strong leadership from the Managers this is often a difficult hurdle to overcome.
- The communities will also need to consider records processing procedures and whether the dispatch center has a role in providing 24-hour access to the police facility for records & reports.
- The dispatch center also often serves as the switchboard and after-hours contact point in many communities. This issue should be considered as part of consolidations discussions.

Recommendation: Implement performance standards for dispatching Priority One calls for service.

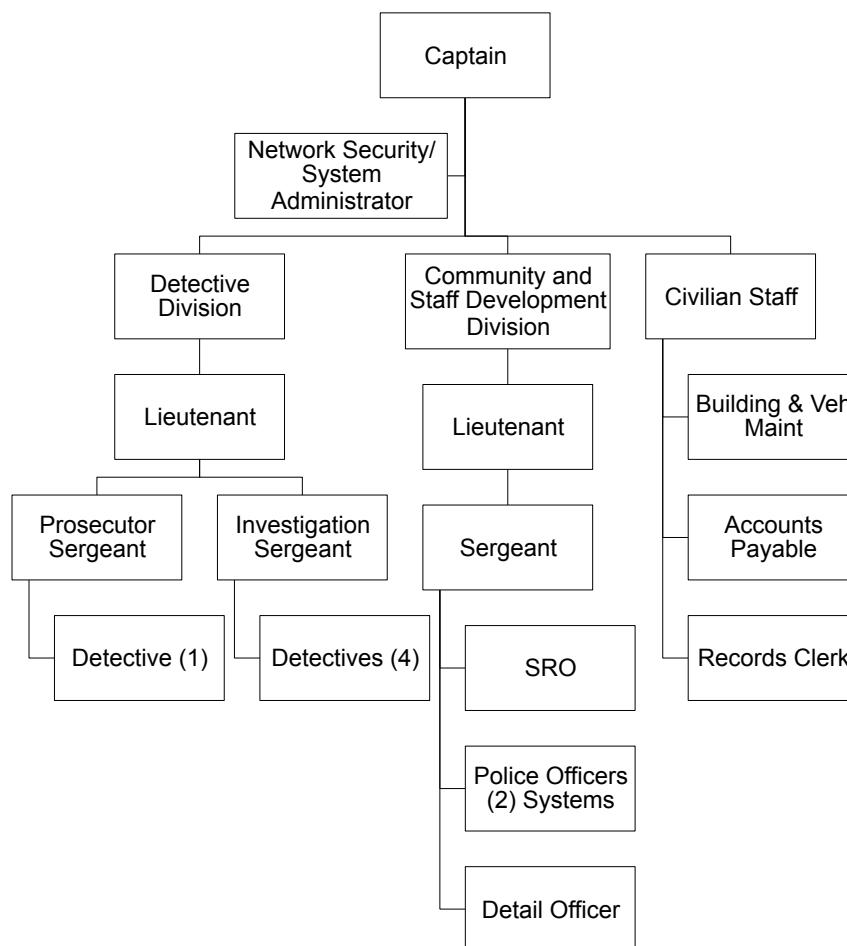
Recommendation: Continue the implementation process of EMD protocols and procedures and train dispatch personnel prior to the 2013 mandate.

Recommendation: Explore opportunities with surrounding communities for the regionalization or consolidation of dispatch services.

4. ANALYSIS OF THE ADMINISTRATIVE SERVICES BUREAU

The chapter focuses on the Administrative Services Bureau duties and responsibilities beginning with investigative services provided by the Watertown Police Department. The workload information utilized in this section was obtained from interviews with Bureau management, supervisory and line personnel. Additionally interviews with civilians in the Administrative Services Bureau occurred as part of the study and desk audits were conducted with detectives.

Current Organization and Staffing of Administrative Services



1. INVESTIGATIONS WORKLOAD, STAFFING AND EFFECTIVENESS ARE EVALUATED DIFFERENTLY THAN PATROL OPERATIONS.

A Captain who reports directly to the Chief of Police manages the Administrative Services Bureau. This division includes the Detective Division, Community & Staff Development Division, and Civilian Staff.

It is more difficult to evaluate the staffing levels required by criminal investigations because, unlike patrol, more subjective and qualitative determinants of workload and work practices need to be considered. Patrol services have the benefit of several quantitative measures, such as calls for service and proactive time, to assist in the evaluation of staffing requirements, whereas investigative services have fewer such reliable measures. Comparisons with other agencies are also difficult given the variations of conducting investigative business among differing law enforcement agencies throughout the nation. Factors making comparative analyses difficult include:

- What is actually investigated varies by agency. The extent to which agencies assign misdemeanor level property crime cases to Detectives varies. Also, the extent to which patrol performs preliminary investigation varies widely and thereby impacts Detective caseloads.
- Approaches used to screen, assign, and monitor cases are different among law enforcement agencies. By example, Watertown relies on managerial case screening whereas other departments may use crime analysis or dedicate Unit Sergeants to read and initially screen cases based on various formalized solvability factors.
- Work practices vary tremendously among agencies, relating to interviewing techniques, mix of telephone and in-person interviews, use of computer technologies, time devoted to administrative tasks, etc.
- Complexity of caseloads is also a critical factor to consider when examining quantitative factors relating to investigative activity. Each case is different in terms of workable leads, suspect description, evidence availability, victim/witness cooperation, quality of information provided by the original report taker, and numerous other factors. The way information in a single case may combine with information on other cases (e.g. serial crime) also impacts investigative actions.

- Additional duties and responsibilities performed by detectives beyond caseload work. Such activities may include being a specialized trainer, assisting on warrant arrests or various other administrative duties detracting from casework. In smaller agencies, the existence of collateral duties such as these are a normal part of the assignment. For a study such as this, it means that these diverse duties need to be factored into the analysis of staffing needs.
- Finally, the nature of the community itself is a factor in evaluating investigative workload and staffing needs. Citizen expectations translate into service levels impacting detectives in terms of what is investigated and how investigations are conducted.

These various considerations portray investigative workloads with numerous qualitative considerations when compared to that which depicts typically quantitative-driven patrol workload. Unlike patrol, investigative workload lacks some specific measures that can be converted into quantitative methodologies to arrive at required staffing levels. In sum, qualitative issues must also be considered. Investigative staffing requirements need to be examined from a variety of perspectives in order to obtain an overall portrait of staffing issues, case handling issues, and operational philosophies that have an impact on overall staffing needs. The sections, which follow, provide a description of how the project team conducted its analysis relative to the aforementioned approaches.

As stated above, investigative workload and staffing requirements employ a series of broad indicators to determine the extent to which core investigative staffing and general workload in the Department compare to ranges observed in other departments. This information is used to determine if the Watertown PD is within the ranges measured by those indicators. Investigative workloads vary depending on the number and types of cases a Detective is assigned, their complexity, and also the level of service desired by an agency. Generally speaking, however, the comparative

measures that can be employed are displayed in the following table:

Comparative Measures for Investigations

Comparative Measures	Comparative Industry Patterns
Part I Offenses per “line” Detective in core investigative functions such as persons and property crimes Detectives. This does not include those assigned to “proactive” units such as narcotics or vice.	The Average distribution of Part I Offenses per “line” Detective developed in police services studies in the U.S. generally ranges from 300-500 Part I Offenses per investigator.
Case Clearance for Part I Crimes – serious crime, captured at State and National levels and including homicide, rape, robbery, aggravated assault, theft, burglary and auto theft.	The Uniform Crime Report provides data on average case clearance by major crime type for various sized jurisdictions.
Active cases assigned to “property” crimes Detectives (e.g., burglary/theft).	15 to 20 active cases per month based on a survey of dozens of law enforcement agencies performed by the Matrix Consulting Group over the last several years.
Active cases assigned to White Collar crimes Detectives (e.g., fraud).	These have a broader range due to their varied complexity, from 10 to 20 active cases per month each.
Active cases assigned to “person” crimes Detectives.	8 to 12 active cases per month based on the same survey. 3 to 5 active cases for complex person crimes such as felony assault (shootings) to include homicides. Domestic Violence cases vary widely dependent upon State mandates that result in varied workloads. Some DV Units can handle 20 to 30 cases per investigator per month, whereas others can only handle DV cases typically attributed to “felonious person crimes.”
Active cases assigned to “generalist” crimes Detectives.	12 to 15 active cases per month based on the same survey.

There is no caseload standard for specialized units, such as Narcotics, because these types of cases are more proactive in nature. They can consume many weeks of staff time generating leads, contacts and suspect information; and they may also often require surveillance and related activities. It should be noted that WPD previously had two detectives assigned to a narcotics task force, but due to staffing cuts that has reduced to one.

2. A COMPARISON OF CRIME CLEARANCE DATA SHOWS NO ISSUES OF SIGNIFICANCE WHEN COMPARED TO PEER AGENCIES.

One approach to evaluating the outcome of investigative services or investigative effectiveness is to benchmark case clearances⁵ versus other local law enforcement agencies in similar sized communities.

(1) Using Case Clearance with Benchmarked Agencies.

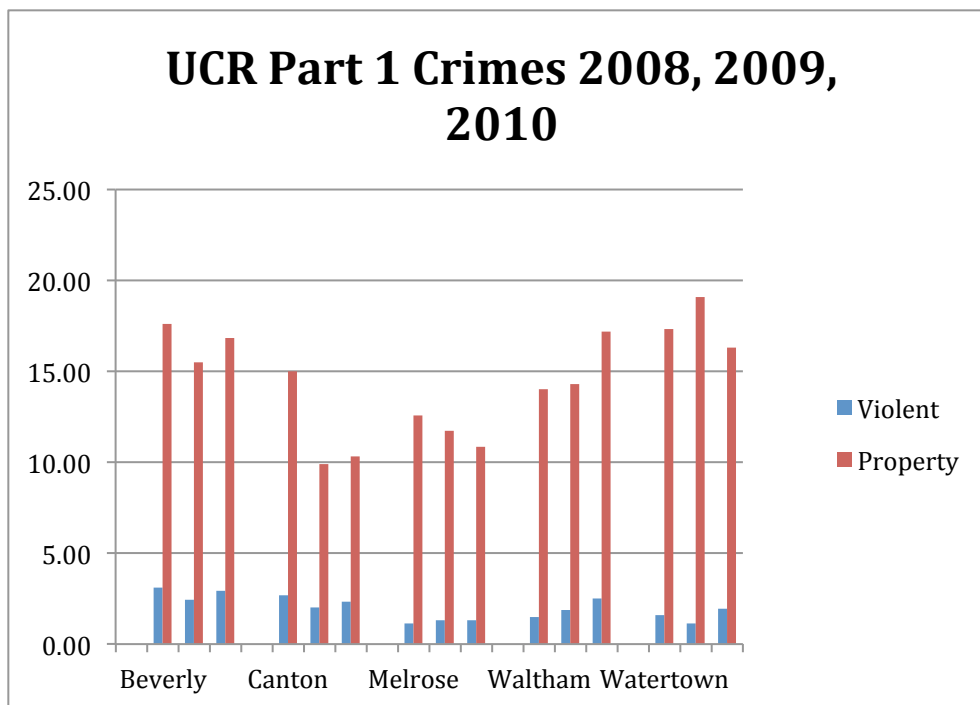
Information available from the Uniform Crime Reports (UCR) provides case clearance statistics for Part I crimes. The following table shows benchmark communities and their law enforcement agencies respective UCR statistics.

2008 - 2010 – Part I UCR Statistics, Selected Massachusetts PDs

City/Town	Pop.	Violent	Murder	Rape	Robb.	Ag. Asslt.	Property	Burg.	Larceny	Motor Vehicle Theft	Arson
Beverly											
2008	39,435	122	0	10	20	92	695	107	548	40	0
2009	39,919	97	0	10	12	75	619	114	474	31	1
2010	39,064	114	2	8	9	95	657	131	502	24	2
Canton											
2008	20,054	54	0	3	3	48	301	66	218	17	3
2009	22,407	45	0	2	5	38	222	44	163	15	0
2010	22,291	52	0	3	4	45	230	67	150	13	0
Melrose											
2008	26,737	30	0	1	9	20	336	75	235	26	2
2009	27,134	36	0	2	11	23	318	102	193	23	1
2010	26,796	35	0	3	8	24	291	92	184	15	1
Waltham											
2008	60,459	89	0	9	15	65	848	108	696	44	1
2009	61,357	115	0	8	24	83	878	166	653	59	7
2010	60,106	151	2	13	24	112	1,032	200	759	73	2
Watertown											
2008	32,462	52	0	3	6	43	563	101	433	29	1
2009	32,994	38	0	2	7	29	630	89	509	32	0
2010	32,780	64	0	4	13	47	534	69	436	29	0

The table above shows that Watertown does not have any significant crime issues when compared with benchmark communities in Massachusetts. To gain a clearer picture the above data is shown below on a per 1,000 resident basis.

⁵ Cases are cleared through an arrest or exceptional circumstances.



As shown in the above chart, when Part 1 crime is depicted on a per 1,000 resident basis Watertown has slightly lower incidences of violent crime than the comparative communities and a mix of higher property crime rates than Canton and Melrose and lower rates when compared to Beverly and Waltham in 2010. In 2008 and 2009, Watertown had higher property crime rates than all the comparative communities.

The use of related clearance rates also is a useful comparative data tool to determine the effectiveness of detectives in solving crime as compared with benchmark agencies. The following information reflects the UCR clearance data for the above agencies.

2010 – FBI UCR Clearance Statistics

Jurisdiction	<i>Violent Crime</i>	% Cleared	<i>Property Crime</i>	% Cleared	Total Clearance %
National	1,080,242	47.2%	8,064,964	18.3%	28.2%
New England	46,824	50.0%	661,911	23.4%	36.7%
Cities 25,000- 49,999 population	84,032	49.9%	797,465	21.3%	35.6%
Watertown	64	78.1%	534	21.5%	49.8%

As indicated by the table, in comparison to the other noted agencies, there are no crime clearance issues of significance; overall, Watertown PD staff clear a higher portion of cases overall when compared to law enforcement agencies Nationally, Regionally, and of comparable size. Watertown PD enjoys a much higher clearance rate for violent crime when compared to the national, regional and similar sized communities. WPD also performs well in clearing property crime, when compared nationally and with similar sized communities, but is slightly below the regional clearance rate in this area. Typically property crimes are harder to solve as the crime may go undetected for a protracted period of time before police are notified.

(2) Using Uniform Crime Reporting Part I Crime Data, the Ratio of Part I Crimes per Detective Is Marginally Below Averages Compared to Benchmark Agencies.

The number of Part I crimes per Detective in many other law enforcement agencies in the United States averages between 300-500 crimes per Detective. Part I Crimes are taken from the annual Uniform Crime Report and compared to actual detective staffing levels in a police agency. The following reflects information gathered by the project team over the last several years related to these staffing patterns:

Range of Part I Offenses per Investigative Staff

Range of Part I Offenses Per Core Investigator	Percent of Departments Surveyed with Part I Offense Ratios in the Range
Less than 300	5.3%
300 to 400	31.6%
400 to 500	42.1%
More Than 500	21.0%
TOTAL:	100%

In addition to the above table, a comparison of this metric against a variety of law enforcement agencies with which the Matrix Consulting Group has directly worked over the last four years is further enlightening. It should be noted that in none of these agencies utilize civilian “assistant investigators” and in the shaded ones generalist investigators are utilized.

Range of Part I Offenses per Core Investigative Staff

Agency	Part I Offenses Per Core Investigator
Aurora, CO Police Department	211
Brick Township, NJ Police Department	148
Corvallis, OR Police Department	403
Galt, CA Police Department	257
Gilroy, CA Police Department	466
Goodyear, AZ Police Department	461
Grants Pass, OR Public Safety	636
Lawrence Township, NJ Police Department	216
Lowell, MA Police Department	341
West Springfield, MA Police Department	373
AVERAGE OF THESE AGENCIES	351
Watertown Police Department	299

Based on detective staffing levels of two generalist and one Domestic Violence “core detectives” and based on 2010 UCR data shown above, the ratio of Part I Offenses per Detective is 299:1. In 2009 the ratio was slightly higher at 334:1. This is near the average of the agencies with which the project team has recently worked and at the low end of the noted 300-500 in surveyed agencies as noted by the prior table. Based on Part I crime comparisons, the WPD has a sufficient number of detective staff

assigned. This comparison reflects the ability of investigators to investigate assigned cases, be proactive where this is warranted and possible and have selected other collateral duties.

It should be noted that UCR data should be viewed with some caution; that is why it is only one method by which the project team evaluates investigative services.

The following is abstracted directly from the FBI's website:

"Each year when *Crime in the United States* is published, many entities—news media, tourism agencies, and other groups with an interest in crime in our Nation—use reported figures to compile rankings of cities and counties. These rankings, however, are merely a quick choice made by the data user; they provide no insight into the many variables that mold the crime in a particular town, city, county, state, region, or other jurisdiction. Consequently, these rankings (alone) lead to simplistic and/or incomplete analyses that often create misleading perceptions adversely affecting cities and counties, along with their residents."

Clearance rates can be impacted by a number of factors, including the investigative process used, skills of staff and staffing levels, and should not be considered an exclusive measure of investigative productivity. It is, however, one measure that can allude to several operational characteristics. This information is interesting; however as any standalone metric, this performance measurement is inconclusive in and of itself as there are other workload drivers beyond Part I felony crimes. Nevertheless, these data point to a potential operational issue deserving further analysis.

3. CASES ASSIGNED TO WPD DETECTIVE STAFF ARE HIGHER THAN DESIRED CASELOAD TARGETS WHEN COMPARED TO MOST OTHER NATIONAL LAW ENFORCEMENT AGENCIES AND BEST PRACTICES.

To analyze staffing and workloads for the described detective division, the project team obtained information from the Department. This hardcopy information was evaluated and particular data elements analyzed.

Based on the analytical approach shown above, the following is noted regarding the Detective Unit.

- Average monthly caseload per detective varies from 14 cases to 21.8 cases. The only “specialist” detective is assigned to Domestic Violence and is at the high end of case assignment. The Domestic Violence Detective also handles a number of licensing functions that could be civilianized to alleviate excess workload.
- WPD has case management software to track cases that is effectively utilized by all member of the Detective Division. Data was provided to the project team in directly from the system and was easy to evaluate and understand.
- The amount of workload assigned is comparatively excessive, particular for “generalist” detective positions. As noted in a prior table, a Detective should have 12-15 active cases per month. A case audit of WPD detectives indicated that cases assigned for investigation are slightly above this level at 16 cases per month.

High caseload levels for detectives can lead to important operational issues. Fortunately the current situation appears to have negligible impact on case clearance. Enhancement of the case screening process and plans to civilianize the ancillary duties of the Domestic Violence Detective should bring caseloads back to manageable levels. If caseloads continue to be at the high end of best practices additional staff resources in detectives should be considered. These are discussed in the following sub-sections.

(1) The Detective Division Should Formalize the Case Screening Process Using Solvability Factor and Priority Status Methodologies Consistent with Best Management Practices.

The current state of case management is indicative of a less than formal and effective case assignment process. Because the case screening process is not formalized and the Lieutenant and Sergeant rely on experience when assigning cases, there may be cases assigned that might not warrant follow-up investigation. Present case screening practices also have no formal way to help prioritize workloads. In effect, failure to use a proven solvability index at WPD will have an impact on perceived staffing needs, as there is no effective linkage between what work should be done and what is actually accomplished. Developing a detailed case screening process and the associated protocols is beyond the scope of this report; however, particular guidelines are highlighted herein. There are examples available of detailed relevant policies and procedures associated with investigative services.

In order to ensure consistency and help prioritize work for investigative follow-up, a formal case screening checklist with relevant solvability factors should be adopted by WPD. This is consistent with progressive case management philosophies as well as with the Commission on Accreditation for Law Enforcement Agencies (CALEA) case-screening system criteria (Section 42.1.2).

Based on the project team's review of various case screening processes in use in varied law enforcement settings, we believe that the following 12-point checklist, in conjunction with a Priority Status methodology, should be considered for adoption.

(2) The Solvability Factor Methodology.

The use of solvability factors is consistent with CALEA's Section 42.1.2, which

states, “The agency uses a case-screening system and specifies the criteria for continuing and/or suspending an investigative effort.” This screening can take several forms. There are a variety of case screening and assignment methods available and the Watertown Police Department should adopt one that best ‘fits’ it or develop one of its own. There are twelve screening points to consider:

- Witnesses to the crime;
- Knowledge of the suspect’s name;
- Knowledge of where the suspect can be located;
- Reasonable description of suspect;
- Identification of suspect probable;
- Property with traceable, identifiable characteristics, marks or numbers;
- Existence of a significant modus operandi;
- Presence of significant physical evidence;
- Reasonable description of the suspect’s vehicle;
- Positive results from a crime scene evidence search;
- Belief that crime may be solved with publicity and/or reasonable additional investigative effort; and
- Strong possibility and/or opportunity for anyone, other than the suspect, to have committed the crime.

These solvability factors should be incorporated into a formal case screening process whereby the above list, or some derivative, is used as a cover sheet on all cases to determine whether it is an assignable case to a Detective for investigative follow-up. For those cases requiring follow-up, the suggested prioritization, as discussed subsequently, should be noted on the cover sheet.

Adoption of a formal screening process will ensure that for those cases with no solvability factors checked, the maximum service received on the case is minimal and has limited impact on staff workload. This may amount to one courtesy telephone call to the victim advising them of their case status and the need for additional information to continue the investigation – which the Department currently does.

Effective case screening allows for the bulk of investigative resources to be dedicated to solvable cases, thereby allowing time to focus on solving and clearing major crime activities. Case screening based on formal solvability factors and the implementation of a formalized process is a best management practice that should be adopted by WPD in the short term.

Recommendation: Formalize the case screening process using a documented solvability factor methodology.

(3) The Prioritization Methodology

Once a case has been screened for solvability, based on those solvability factors checked, as well as a review of the qualitative case circumstances, the case should be prioritized for work based on the following seven-priority rating. Prioritization of workload has clearly been widely adopted in patrol services throughout the nation through call priority classifications, but is used in a lesser capacity in other law enforcement arenas. The project team believes case prioritization is an effective management tool to augment case screening. The seven-priority rating includes:

- Priority 1 – Felony Crime with In-custody suspect or excellent chance of arrest.
- Priority 2 – Misdemeanor Crime with In-custody suspect or excellent chance of arrest.
- Priority 3 – Felony Crime with reasonable chance of arrest.

- Priority 4 – Felony Crime with limited chance of arrest.
- Priority 5 – Misdemeanor Crime with reasonable chance of arrest.
- Priority 6 – Misdemeanor Crime with limited chance of arrest.
- Priority 7 – Courtesy phone call based on no solvability factors.

This priority system can be modified to meet the unique needs of the WPD; however, the concept should be used as a framework for prioritizing workload, thereby focusing detective resources on the most important cases. A 1-7 Priority should be assigned on all case screening cover sheets as noted previously.

Recommendation: Formalize a detective caseload prioritization system as part of the case screening process using a 7-priority system as a framework.

(4) If Revised Case Management Practices Do Not Significantly Impact Cases Assigned to Detectives, Consider Additional Staff Resources.

If revised case screening and management practices do not reduce the number of cases assigned to detectives, consideration should be given to adding additional staff resources to the detective unit. While case clearance (a performance outcome) is currently reasonable, interview suggests that detectives do not have sufficient time to effectively work what they believe are potentially solvable cases. Balancing detective outcomes with necessary staffing levels should be accomplished internally with emphasis placed on first revising case assignment and investigative approaches and secondarily on increased staffing levels. The Detective Division could potentially benefit from at least one additional investigative staff member. However, other business process changes should be explored first, including:

- Screening out cases with low solvability potential.
- Assigning follow up to “minor cases” to patrol.

- Eliminating or reassigning detective collateral duties.
- Assigning some tasks currently performed by detectives (e.g., certain licenses) elsewhere in Town government (e.g., the Town Clerk's Office).

Recommendation: Revise case screening practices, assign minor cases to patrol and reduce the number of collateral duties handled by detectives. Only once these recommendations are implemented should the Town and Department reconsider Detective Unit staffing levels.

4. SUPPORT POSITIONS IN THE ADMINISTRATIVE SERVICES BUREAU APPEAR EFFECTIVE, ALTHOUGH THE DEPARTMENT SHOULD EVALUATE THE OPPORTUNITY TO CIVILIANIZE THE DETAIL OFFICER.

Based upon our interview and review of job duties and responsibilities, the additional support positions in the Administrative Services Bureau operate appropriately. This is in no small part due to the fact that they are typically one-person work units. These units include:

- The Detail Officer assigns detail and overtime daily for officer in WPD. The position is also responsible for a number of ancillary duties to include: weekly payroll entry, entering paid invoices in system working with surrounding agencies to fill unfiled details, coordinating various community policing projects, notifying supervisors of detail and overtime assignments, updating day/night sheets regarding time off requests and filling replacement shifts required by the current contract M-F. The Department and Town should consider civilianizing this position because the duties are largely administrative. A small but growing number of communities in the Commonwealth have even civilianized some or all right of way details so the administration of many of these duties is certainly something that could be handled by civilian personnel. Other duties should be redistributed to other personnel. The cost savings of this could be as much as \$20,000 per year in salary and fringe benefits.
- The Property Evidence Officer performs a variety of tasks related to property and evidence to include: processing and storage consistent with chain of custody requirements for WPD; inventory control; maintaining logs and chain of custody; property dispositions and property destruction; transporting evidence to court for trials; and returning evidence to victims when legal requirements have been satisfied. The position also serves as the prosecutor and prepares case folders for court, tracks cases in court, stands on criminal and show cause hearing, and gathers discovery items for the District Attorney's Office. The current officer filling this position is the Department's computer crime investigator and part of the fire investigation team for Watertown.

- The Accounts Payable Clerk is responsible for paying bills and working with vendors, maintaining supply orders for the Department, and serving as the backup for the records clerk as required. This position has also been designated as the civilian position that will assume the licensing duties currently performed by the Domestic Violence Detective.
- The Records Clerk is responsible for proper filing of all police reports and reports after court disposition. This position is also responsible for processing open records requests in compliance with the Freedom of Information Act; including requests from courts, and other governmental agencies requiring information from the Department. The records clerk also completes all training registrations for the Department when training is approved.
- The Communication & Network Security / System Administrator is a sworn officer. This position is responsible for all computer hardware, sets up all new Police Department computers with required software and configuration, administration of 10 servers and public safety computer network, is the E9-1-1 system coordinator, and related duties.
- The Building and Vehicle Maintenance performs maintenance and repairs for WPD vehicles and non-motorized units, determines preventative maintenance schedules for fleet, provides input regarding replacement of vehicles, responds to requests for facility maintenance and warrant issues with new facility.

Current systems are a mixture of manual logs and off-the-shelf software packages to maintain data. There is a legitimate concern by the Town about increasing access to Munis from others not currently having access. However, the Police Department has expressed the need for 'refresher' training of staff with access to this system.

Recommendation: Work with the Town to ensure that personnel engaged in payroll and purchasing processes are able to fully utilize the Munis System to the extent that they are authorized to do so.

Recommendation: Consider civilianizing the detail officer position with the potential for up to \$20,000 in cost savings per year. Other administrative collateral duties currently handled by the detail officer (e.g., invoicing and scheduling) could also be handled by this position while other duties (e.g., community policing activities) would be distributed to other sworn personnel in the Department.

5. THE WATERTOWN POLICE DEPARTMENT SHOULD TAKE STEPS TO RE-ATTAIN ACCREDITATION FROM CALEA.

Barring specialized duties and responsibilities, supervisor to staff ratios should typically be in the 1:6 to 1:10 range. That is, 1 supervisor position overseeing 6 to 10 staff. Clearly these ratios are only guidelines as there are many examples of one executive position overseeing 2-5 staff and other examples of one-over-one supervisory relationships, etc.

There are currently three sergeant classifications in the Administrative Services Bureau overseeing twelve line staff. This is effectively one immediate supervisor to 4 positions. While best practices suggest that specialized proactive (undercover) enforcement units, such as Narcotics, be directly supervised, such is not the case for other policing functions.

The Community and Staff Development Lieutenant is tasked many duties involving the accreditation process, departmental training, policy updates, critical incident planning, community policing, legal review and bulletin updates, and coordination with the North Eastern Massachusetts Law Enforcement Council (NEMLEC) which make evaluation of this position solely on span of control impractical. The technical nature of the work provided must be evaluated to determine if the lower span of control is adequate with this position. In many agencies the size and complexity of Watertown, the accreditation duties are handled by either civilians or personnel at the officer level. The Lieutenant represented the Department at the Town Building Committee meetings related to the construction of the new headquarters facility. This position is also the responsible for researching, developing, and implementing training delivered through the Digital HQ program at daily roll call. The Chief of Police has

designated “Everyday a Training Day” which requires new training material to be developed and available for shift briefings.

While the current staffing levels in Community and Staff Development do not support the need for a manager solely over these processes, it is clear the Lieutenant is tasked with many responsibilities that require the technical expertise and knowledge of someone at the Lieutenant rank. The Sergeant is effectively supervising four (4) full time direct reports and four (4) unpaid interns assigned to this Division.

As the Department moves toward re-gaining accredited status consideration should be given to adding a civilian accreditation coordinator to assist in the duties associated with accreditation that do not require the Knowledge, Skills and Abilities (KSA's) of a Lieutenant. This position can also assist with other administrative functions in the Division, which occupy the time of the Lieutenant and Sergeant.

Recommendation: As the Department works to re-achieving and maintaining accredited status, consider adding a civilian Accreditation Coordinator in the Administrative Services Bureau who reports to the Lieutenant at a cost of about \$48,000 per year for the new position and about \$8,500 in other operating costs.

6. THE IN-SERVICE TRAINING SCHEDULE EXCEEDS STATE REQUIREMENTS FOR CONTENT AND DURATION.

The Community and Staff Development Division is responsible for ensuring department personnel receive require training as covered in Massachusetts General Law. Each officer is required to attend a minimum of 40 hours of training each year. The current training schedule in place at Watertown PD ensures an average of 58 hours is provided to officers on an annual basis and includes 32 hours of annual training, 18 hours of roll-call training and 8 hours of firearms training for sworn personnel.

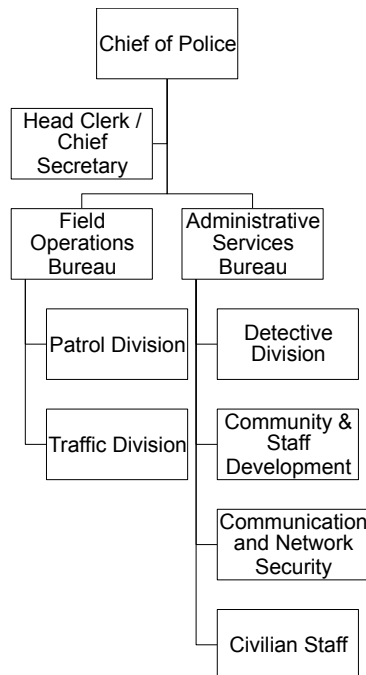
Beyond the scheduled mandatory training the Department also offers various classroom training courses during the year, which vary from 16 – 30 hours in length.

APPENDIX A

PROFILE OF THE POLICE DEPARTMENT

This document is a descriptive profile of the Watertown Police Department (WPD), prepared by the project team from the Matrix Consulting Group. This profile is intended to serve as a comprehensive summary of staffing, organization, workload and other factors that describe the operations and services provided by the Watertown Police Department. This profile is organized into subsequent chapters that describe the Office of the Chief, Field Operations Bureau and Administrative Services Bureau. The staffing numbers used are the authorized positions as of July 2011.

The Matrix Consulting Group project team reviewed the current organizational structure. The current organizational structure is depicted in the following exhibit:



1. OFFICE OF THE CHIEF

(1) Introduction

The Chief of Police has overall responsibility for all department functions; and has direct responsibility for the Field Operations Captain, Administrative Services Captain and Head Clerk / Chief Secretary.

(2) Staffing

The exhibit below provides a summary of the staff reporting directly to the Chief of Police, by function and classification, and also summarizes their key roles and responsibilities. Note that the columns “Bgt” means budgeted/authorized WPD positions in each classification that are vacant as of June 2011.

Function	Position	Bgt	Key Roles and Responsibilities
Department Management and Leadership	Police Chief	1	<ul style="list-style-type: none"> • Manages and coordinates all police services in the Town to meet objectives set by the Town Manager and Town Council. • Provides overall leadership and guidance of Department personnel and police services. • Provides overall management and administration of the Department; coordinates resources. A member of the executive management team of the Department and the Town. • Represents the Department to the public; develops relationships with business and neighborhood leaders. • Develops and maintains good working relationships with other managers in the Town and peers in the regional and state law enforcement community. • Represents WPD in regional and state law enforcement work efforts and projects. • Coordinates and evaluates Bureau managers. • Performs routine administrative functions in the day-to-day management of the Department.
	Captain Field Operations Bureau	1	<ul style="list-style-type: none"> • Manages and coordinates operations related to patrol and traffic operations in WPD. • Manages and coordinates operations related to Dispatch. • Handles questions and issues based on citizen phone calls. • Supervises the Patrol Lieutenants and ensures personnel are meeting expectations. • Supervises the Traffic Sergeant and ensures personnel are meeting expectations. • Reads all reports written in PD daily. • Conducts internal affairs investigations as assigned by Chief. • Coordinates and serves as a liaison between employees and overseeing workers compensation and injured on duty. • Reviews reports for appropriate charges.

Function	Position	Bgt	Key Roles and Responsibilities
	Captain Admin Services Bureau	1	<ul style="list-style-type: none"> • Manages and coordinates the operations related to Detectives Division. • Manages and coordinates the operations related to the Community and Staff Development Division • Manages and coordinates the operations related to the civilian administrative staff. • Manages and coordinates the operations related to the evidence function. • Direct reports are the Systems Administrator, Lieutenant of Detectives, Lieutenant of Community & Staff Development, Building and Vehicle Maintenance, Accounts Payable Clerk, and Records Clerk. • The following functions are performed by the Captain <ul style="list-style-type: none"> • Reads all reports written in PD daily. • Conducts internal audits on evidence procedures. • Serves as backup Systems Administrator. • Conducts Internal Affairs Investigations (serious). • Develops and manages the budget. • Reviews and approves purchases. • Monitors overtime usage. • Redacts information from public record requests. • Writes and manages Department grants. • Manages all technology issues in Department. • Researches, plans, and implements special projects. • Manages capital expenditures. • Reviews all petty cash and checks prior to being sent to Town for processing. • Manage and coordinate payroll.
Admin. Support	Admin Support Technician	1	<ul style="list-style-type: none"> • Personal assistance to the Chief (e.g. correspondence, calendar appointments, phones). • Provides budget support for two Captains. • Completes Department payroll process. • Ensures overtime accounts are balanced, • Ensures step increases occur in payroll. • Balances attendance records with Town Hall. • Assists in grant management. • Administers workman's compensation program for WPD. • Maintains WPD personnel files.

2. FIELD OPERATIONS BUREAU

(1) Introduction

A Captain who reports directly to the Chief of Police manages the work groups in the Field Operations Division. This Division is responsible for providing police patrol, response to calls for service, preliminary investigation of crime, traffic safety services, investigation of major injury traffic collisions, problem oriented policing, dispatch services and the crossing guard function for the Town of Watertown.

(2) Staffing

The table below provides a summary of the staff reporting to the Field Operations Division Captain, by function and classification, and also summarizes their key roles and responsibilities.

Function	Position	Bgt	Key Roles and Responsibilities
Division Management	Captain	1	<ul style="list-style-type: none"> • Provides overall leadership, management and administration of the Field Operations Division. • Supervises the Patrol Lieutenants and the Traffic Sergeant. • Prepares and manages the Division budget. • Provides guidance to staff and coordination of Department personnel. • Manages and coordinates all services provided to meet objectives set by the Chief.
Operations	Day / Night Lieutenant	4	<ul style="list-style-type: none"> • Scheduled for each of the four shifts (Day, 1st half, 2nd half & relief). • Debriefing with prior shift commander • Conduct Roll-Call with shift personnel • Assign Routes • Review logs and calls to determine issues in community • Supervise Sergeants, Patrolman, Dispatch and administrative officer • Listens to radio and provides input to dispatchers • Book prisoners with assistance from administrative services officer (enter data, photograph, advise of rights) • Monitor prisoners from desk (30 minute physical check by administrative officer) • Review log to ensure proper reports are completed • Review reports for appropriate charges filed, grammatical errors, elements of offense • Print approved reports and appropriate documents for Officers and Detectives to take to Court • Prepare paperwork related to restraining orders to be served by Officers • Ensures proper processes are followed for paperwork and ensure all restraining orders are served and return of service is delivered to prosecutor to take to Court. • Enter any critical information into Digital HQ for oncoming shift • Call backs / notifications for critical incidents (Detectives, Captain Chief etc.) • Assign Sgt's a Route for Community Policing to determine CP activity for Route • Create assignment work sheets for shift • First half and last half OIC handles details that come in after-hours.

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Function	Position	Bgt	Key Roles and Responsibilities
	Sergeant	5	<ul style="list-style-type: none"> • Review assignments and manning levels. • Cover any assigned posts (traffic @ busy intersections). • Roll Call (Sgt gives assignments and line inspection) (LT does DHQ briefing). • Sgt's back up cars on calls. • Cover for LT when he is on dinner break. • Perform booking procedures and Breathalyzer as needed. • Authorize all vehicle tows. • Supervise patrol officers and officers working details (must check all details) • Assign directed patrols for community policing issues and follow-up on impact • Assign business checks to verify emergency contact issues (officers contact) • DHQ updates for their assigned sector (each Sgt. has a sector) • 2nd half Sgt. produces weekly bulletin (distributed on Thursday with paychecks) • Enforce licensing laws related to one day licensing for special events • Day Shift Sgt. Meets with Detail Officer to determine daily detail and what is filled vs still open • Conduct status meetings with personnel 1-2x per week (focus on productivity and what is going on in their assigned Route) • Spend majority of time in field (90%+) • Monitor radio and respond to critical calls for service • Focus on crash reduction for directed patrols, (speeding, vandalism, OUI) • Ensures officers / self attend assigned court dates during shift • Transport persons receiving a restraining order to court (State Law) • Patrol supervisors respond to photograph scenes if needed, but does not require CSI. • Patrol supervisor serves as accident investigator for any town vehicles involved in accidents • Primary contact for citizen complaints. • Meet with DPW and contract company to coordinate major road projects that impact businesses • Review and make recommendations to policy additions and recommendations • Conduct research related to any special assignments (range master + ammunition for indoor range)

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Function	Position	Bgt	Key Roles and Responsibilities
	Patrol Officer	34	<ul style="list-style-type: none"> • Respond to all calls for service in the Town, including crimes against persons, property crimes, domestic disputes, traffic collisions, and disturbances. • Provide direct field enforcement of all applicable laws within the Town; make arrests, issue citations. • Provide a visible law enforcement presence in the community. • Write incident/crime reports; conduct preliminary investigations of crime; conduct follow-up investigations as appropriate or assigned by Detectives. • Engage in neighborhood patrols, directed patrol, traffic enforcement and other proactive activities to reduce crime. • Respond to questions, concerns and requests from the general public and provides information and problem resolution as necessary. • Identify and address both criminal and quality of life issues on their route.
Dispatch	Dispatcher	9	<ul style="list-style-type: none"> • The Lieutenant leads, manages, and supervises the Dispatchers. • Answer and dispatch 9-1-1 calls. • Set up daily rosters for patrol. • Dispatch Police, Fire, EMS and serve as department switchboard. • Warrant checks and warrant management. • Run license plates. • Criminal History and checks related to prisoners being booked. • Teletypes and bulletins. • Maintain hard copies of restraining orders, stolen vehicles and missing persons and enter into database. • Maintain emergency call list and business listings. • Maintain trespass orders. • Enter flags on addresses for special situations. • Senior dispatcher handles NCIC/CJIS issues and procedural compliance. • Serve as back up for front window if Admin Officer is busy. • Fire alarm boxes (nightly readings on circuits and voltage to ensure all are working correctly) - these are located in large businesses and on street boxes.
Traffic	Sergeant	1	<ul style="list-style-type: none"> • Responsible for review of all accident reports • Supervises the activities of 2 Traffic Officers. • Takes requests for placement of the Town's traffic board. • Coordinates with State Police. • Supervises the crossing guards and their payroll and budget. • Serves as secretary to Town's Traffic Commission. • Conducts traffic surveys and counts.

Function	Position	Bgt	Key Roles and Responsibilities
	Officer	2	<ul style="list-style-type: none"> Provides traffic parking enforcement, traffic scene investigations, and back up to patrol officers as needed. One Officer works a day shift. One works an evening shift. The day Officer is designated as Court Prosecutor to prosecute motor vehicle citations. With other Department officers, both serve on the Accident Reconstruction Team.
	Crossing Guard	23	<ul style="list-style-type: none"> Provides intersection and street crossing safety for children and adults at critical school and other areas.

3. ADMINISTRATIVE SERVICES BUREAU

(1) Introduction

This Bureau is responsible for investigative and special enforcement services including criminal investigations, intelligence gathering activities, participation in various task forces, covert investigations and other supportive efforts. This Bureau also handles records, accounts payable, evidence, school resource, details, technical services, accounts payable, payroll, computer systems administration, network security and building and vehicle maintenance.

(2) Staffing

The table below provides a summary of the staff reporting to the Administrative Services Bureau Captain, by function and classification, and also summarizes key roles and responsibilities.

Function	Position	Bgt	Key Roles and Responsibilities
Division Management	Captain	1	<ul style="list-style-type: none"> Provides overall leadership and management of the Administrative Services Bureau. Supervises the Detective Lieutenant, Community & Staff Development Lieutenant, Systems Administrator, and Civilian administrative staff. Prepares and manages the Department budget. Provides guidance to staff and coordination of Department personnel. Manages and coordinates all services provided to meet objectives set by the Chief.

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Function	Position	Bgt	Key Roles and Responsibilities
Investigation Unit	Lieutenant	1	<ul style="list-style-type: none"> • Supervises the Investigation Sergeant and Prosecutor Sergeant. Detectives. • Review prior days reports. • Reviews public records requests for conflicts with ongoing criminal investigations. • Oversees evidence processing and control. • Work with Sgt. to assign cases. • Media Relations. • Review and approves cases submitted by detectives. • Involved in major cases (School embezzlement case ongoing) • Conducts serious IA investigations. (If it goes criminal would ask DA for State Police to investigate) • Assigns himself small quick cases to alleviate detective caseload. • Works with Prosecutor to ensure charges are proper before court hearings. • Manages all the licensing issues occurring (See Detective notes). • Attends licensing board hearings in absence of Sgt.
	Sergeant	1	<ul style="list-style-type: none"> • Directly supervise 4 detectives (3 investigators, 1 detached on joint FBI task force). • Review Licenses before businesses open: monthly meeting (alcohol, business owner background checks, financing, automotive repair). • Conducts periodic alcohol stings/compliance checks on licensed establishments. • Lt. Lawn and Sgt. work together to assign cases based on solvability and severity. • Oversees firearm licensing (Det. Campbell processes) • Interviews all firearm applicants after application is completed and forwards to Chief for approval. • Actively works cases. • Attends Licensing Board hearings. • Conducts onsite inspections of License holders. • Reviews selective case reports and approves in absence of the Lieutenant.

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Function	Position	Bgt	Key Roles and Responsibilities
Investigation Unit (con't)	Detective	4	<ul style="list-style-type: none"> • Read all reports from prior day, Digital Headquarters, emails, Northeast Massachusetts Law Enforcement Council (Sharepoint site) (1-hour) • Domestic & Sexual Assaults (1 detective) - Down from 2 in Feb 2010 <ul style="list-style-type: none"> ○ Contacts victims of any arrest made. ○ Maintains monthly report. ○ Maintains files on all restraining orders. ○ Works all child abuse cases (completes required state paperwork). ○ Elders and disabled persons cases. ○ Monthly district attorney roundtables on domestic violence. ○ Liaison with victim/witness advocate at Court. ○ Prepares for and attends Court cases as required. ○ Prepare and send domestic violence bulletins to patrol. ○ Training for changes in law to patrol. ○ Attends training on domestic violence and sexual assault. ○ Maintains victims phones (Verizon). ○ Firearms licensing (1st time applications and renewals). <ul style="list-style-type: none"> ▪ Target and Hunting ▪ Sporting ▪ Personal protection ▪ Pepper Spray ○ Taxicab and Limo registrations; March-April renewals. <ul style="list-style-type: none"> ▪ Inspect all cars ○ Processes and issues Solicitor Permits. ○ Issues Retired and Police Identifications. ○ Alcohol Licensing (one-day special licenses) 40-80 per month. ○ Instructs RAD.

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Function	Position	Bgt	Key Roles and Responsibilities
Investigation Unit (con't)			<ul style="list-style-type: none"> • Crime Scene and Department Photographer (1 detective) <ul style="list-style-type: none"> ○ Primary on call for crime scene photographs <ul style="list-style-type: none"> ▪ Responsible for all photos in department regardless of who takes ▪ Takes photos for all State ID cards for department ○ Reads all department reports ○ Crime scene investigator <ul style="list-style-type: none"> ▪ NEMLEC call-outs ▪ Assistance to surround agencies ▪ Prepares roll-call training for crime scene ○ Handles crime lab activities located in basement of PD <ul style="list-style-type: none"> ▪ Current workload precludes detective from doing any crime lab work ○ NEMLEC meeting attendance (currently not attending due to time constraints) <ul style="list-style-type: none"> ▪ Networking and intelligence gathering ○ BRIC (Boston Regional Intelligence Center) messages ○ General investigative duties ○ Interview and interrogations ○ Purchasing supplies for lab, prosecutors, booking area, evidence supplies, surveillance ○ Attends Boston Anti-Crime meetings • General Investigator (2 detectives one is also CSI above) <ul style="list-style-type: none"> ○ Backup photographer and crime scene investigator ○ Read all reports ○ Property Crimes and financial crimes, simple assaults Robberies ○ Current active caseload is about 20 ○ Monthly juvenile reports for State (5 months behind) <ul style="list-style-type: none"> ▪ Used to be handled by juvenile detective ○ Sex Offender Registrations <ul style="list-style-type: none"> ▪ Supposed to conduct frequent audits (not getting done) SORB ○ Make booking videos for Court ○ Read all Pawn sheets (via email)
Investigation Unit (con't)			<ul style="list-style-type: none"> • Federal Drug Task Force (1 detective) <ul style="list-style-type: none"> ○ Supposed to be full-time assignment, but assists agency as needed. ○ Conducts background investigations for all new officers. ○ Assisting in caseload as needed. ○ Attends Federal meetings.

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Function	Position	Bgt	Key Roles and Responsibilities
Prosecutor Unit	Sergeant	1	<ul style="list-style-type: none"> • Responsible for everything that goes to Criminal Court. • Reviews reports for proper elements of offense and processing by District Court (Waltham, Weston, State Police, Watertown). • Serves as department liaison with District Court as Prosecutor. • Jury trials on Wed and Thurs. • Supervises 1 Detective (David Collins) who also functions as secondary evidence officer. • Manages the payroll information for officers attending court both District and Superior (Class 1 Felonies). • Attends Court daily from 9:00 – noon (Show cause hearings etc). • Afternoon is spent preparing for next day court and processing evidence.
	Detective	1	<ul style="list-style-type: none"> • Review all criminal complaint reports and arrests to ensure charges are correct. • Prepare all case folders on the court list. • Sign all criminal complaints for the process in court • Track all cases in court. • Stand on criminal cases in court (OUI, OAS, traffic). • Stand on show cause hearings (Tuesday and Wednesday). • Enter case updates into IMC (RMS system). • Gather and prepare any discovery items for court and file with District Attorney's office. • Serve as liaison for District Court, District Attorney's Office, Juvenile District Court and Probation Department. • Process all criminal summons requests for the DA's, Court and Probation Dept. • Serves as primary evidence officer for Department. • Serves as fire investigator (Team approach two police officers, deputy fire chief, and investigator). • Serves as Department computer crimes investigator. • Assists general detectives as needed.

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Function	Position	Bgt	Key Roles and Responsibilities
Community & Staff Development	Lieutenant	1	<ul style="list-style-type: none"> • Policy Development (Accreditation Standards). • Manages Training (creates roll-call) and training records including field training. <ul style="list-style-type: none"> ○ Serves as Department Training Officer. ○ Reviews legal changes updates. ○ Manages department certified instructors. ○ Coordinates in-house training courses. • Accreditation Manager (currently on hold). • Supervises Division Sgt. • Manages the administration of Details, overtime assignments and shift coverage's. • Manages social media outreach. • Manages technology related to data boards. • Critical incident planning (works with schools and their critical incident teams) and mock exercises with large businesses. • Supervises Records Clerk. • Manages community policing programming. • Grant oversight for grants related to community policing, training, or division related activities. • Management of Crime analysis. • All building issues related to new building • Manages internship program (unpaid). <ul style="list-style-type: none"> ○ Training data ○ Roll call concepts (sun safety) ○ How they interact with other divisions

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Function	Position	Bgt	Key Roles and Responsibilities
	Sergeant	1	<ul style="list-style-type: none"> • Department Liaison (External Relationships). ▪ Oversees the administration of the jail diversion program (grants, supervision of clinician, quarterly state-wide meetings, monthly operations meetings, liaison to Psychiatric Emergency Services) ▪ Represents PD at Health Department Task Force Meeting (elderly, zoning, area hospitals, etc.). ▪ Department representative at School Bullying Committee ▪ Department representative at area Homeless Coalition ▪ Attend District-wide multi-agency meetings for the Schools Critical Incident Teams, and Community Based Justice) ▪ Liaison for Elder Services (general and protective services) ▪ Department representative for Middlesex Disabled Persons Protection Task Force (coordinated by the DA's Office) • Supervises (Serves as secondary backup detail officer): 1 Detail Officer, 1 SRO, 2 Computer officers (data analyst, crime reporting, CAD, RMS), 4 Interns • Develops Department Training • Coordinates Department student intern program • Automated Electronic Defibrillator Coordinator – Ensures repairs are made and contracts are up to date – Also works with other personnel to ensure availability of AED supplies • Oversees Reverse 9-1-1 • Develop and manage community policing grants • Develops and manage community surveys • Compiled quarterly with yearly tally. • Conducts community policing related presentations such as safety presentations to seniors, children, or the Schools

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Function	Position	Bgt	Key Roles and Responsibilities
	Detail Officer	1	<ul style="list-style-type: none"> • Works 7a-3p. • Summer is busiest time for detail (Department has agreements with neighboring agencies to fill extra slots). • Lots of phone work in morning to fill details. • Compares previous days detail sheet with details to appropriately charge hours. • Manages Scheduled Overtime assignments. • Prepares Detail Payment sheets (Town pays officers first and Vendor reimburses). • Prepares overtime slips for Chiefs secretary to prepare payroll. • Retrieves detail slips from prior day and enters into the billing book. • Prepares monthly bills for vendors. Town charges 10% surcharge to cover administrative expenses. • Updates Quick Books with changes to employee and vendor information. • Currently working with other agencies to get more officers to fill details (Formal agreement required). • Prepare first and second notices of past due invoices (30 and 60 days). • Maintains DO NOT WORK LIST for vendors who have not paid for prior details. • Works with auditor office regarding fund transfers and open invoices. (Town details paid by transfer) • Works with agencies to get billing information for details worked outside of town. • Schedules Admin Fill In Shifts (4x per year with patrol). • Participates in community events (station tours, senior center talks, and other CP efforts).
	School Resource Officer	1	<ul style="list-style-type: none"> • Works 7a-3p + after hours events at schools where issues are expected. • Reads reports and pulls issues involving juvenile. • Serves as juvenile investigator for non-major crimes. • Makes referrals to appropriate agencies. • Main day-to-day contact is the Sergeant in the Community and Staff Development Division (Principals and Vice Principals). • Attends critical incident meetings at all schools (5)

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Function	Position	Bgt	Key Roles and Responsibilities
	Technical Services	2	<ul style="list-style-type: none"> • Reads reports to ensure links are correct for RMS system. • Develop training related to RMS issues with Department (live 06/04/2007). • Data Analysis <ul style="list-style-type: none"> ○ Ensures accuracy of reporting ○ Statistical analysis ○ Use of GIS mapping is minimal ○ Charts graphs • Responsible for day-to-day operations of Digital Headquarters. <ul style="list-style-type: none"> ○ Updates crime bulletins and BOLOs ○ Officers update what happens in their Routes • Works with interns to produce roll-call training presentations. • Day to day operation of the digital sign board. • Audiovisual maintenance and troubleshooting. • Day to day maintenance of web page and blog. <ul style="list-style-type: none"> ○ Online presence allows OIC to post blogs as events occur ○ Sex offender registrations • CPR/AED instructor for Department (one of 2 for agencies) - annual refresher. • Uploads new policies and procedures to digital headquarters. • Tracks compliance of officers with trainings posted to Digital Headquarters. • Web Page management
	CAD/RMS Technical Officer		<ul style="list-style-type: none"> • Prepares data for NIBRS submissions. • Coordinates all CAD/ RMS issues on day-to-day basis. • Assists in developing training materials. • Serves as primary backup detail officer. • Assists Systems Administrator in MDS – CAD/RMS communication. • Liaison with CAD/RMS vendor.

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Function	Position	Bgt	Key Roles and Responsibilities
Admin. Services	Comm. & Systems Admin	1	<ul style="list-style-type: none"> • Responsible for all computer hardware for police and fire (95 workstations). • Sets up all new police & fire department computers with required software and configuration. • Administration of 10 servers and public safety computer network. • E9-1-1 system coordinator. • State computer system coordinator. • Manages radio system. • Programs portable and mobile radios. • Oversees police & fire fixed radio assets. • Manages building access control system. • Prepares building videos for IA investigations. • Cruiser and cruiser equipment procurement. • Programming of emergency systems in cruisers. • Department Quartermaster. • Manages telephone system. • Budget preparation for assigned accounts. • Mobile Data System administrator. • Prepares recordings of telephone and 9-1-1 lines for court and internal investigations. • Monthly checks of two generators. • Monitors UPS for station. • Monitors departmental internet usage and email activity for policy compliance • Responsible for network and communication systems security. • Purchases computer and radio equipment.
Civilian Staff	Accounts Payable	1	<ul style="list-style-type: none"> • Accounts Payable. <ul style="list-style-type: none"> Maintains own set of ledgers Pays Bills Works with vendors 60/40 Munis vs. Paper No purchase orders on recurring (Use vouchers, still require same sigs; Capt and Town Hall) • Maintain Supply Orders. <ul style="list-style-type: none"> Office Equipment, Radios, Cars etc. • Serves as backup for Records Clerk. • No online ORR requests available • Assists Captain Dupuis as needed. • Reports to Captain Rocca. • Solicits bids • Assists Systems Administrator in Database clerical entry. • Cross-trained for head clerk duties.

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Function	Position	Bgt	Key Roles and Responsibilities
	Records Clerk	1	<ul style="list-style-type: none"> • Prints reports from previous day for Chief (narratives) • Checks with Community and Staff develop supervisors for direction. • Mails any court related documents from previous day. • Collect citations, mail copy to motor vehicles, separate warnings from civil fines, enters citations into computer (30 per day). • Handles open record requests, Must come to PD and fill out form, collects payments (cash, checks) (10 per week ORR, 20-30 accidents). • Handles requests from courts, sex offender registry, Dept Children and Families, Other governmental agencies. • Conducts background checks for adoptions, immigration etc. • Processes Criminal complaint appeals from traffic offenses for traffic officers. • Completes training registration for officers and dispatchers and enters into computer (IMC). • Files all police reports and reports after court disposition. • Mails and compiles surveys for community input every three months (150 customer contacts from prior 3 month CFS). • Enter accident report checks and cash into Excel spreadsheet and sends to Chief Secretary monthly before is ultimately sent to Town Hall. • Processes all incoming mail and outgoing packages.

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Function	Position	Bgt	Key Roles and Responsibilities
	Building / Vehicle Maint. Director	1	<ul style="list-style-type: none"> • Performs maintenance and repair for WPD vehicles and non-motorized units. • Conducts full check of each WPD vehicle each Friday, including belts, fluids, tires, brakes, and trunk inventory. Records odometer reading of each unit. • Determines preventive maintenance schedules for patrol, detective and command vehicles for the WPD. • Provides input to Captain regarding vehicle replacement needs based on mileage, condition, cost, etc. • Oversees parts inventories for vehicles and building. • Maintains automated records of vehicle maintenance and repairs, as well as manual filing system of repair histories, purchases from vendors, etc. • Responds to requests for facility maintenance. (Note: the WPD facility is less than one year of age, and all major equipment and components are under warranty. Repair and maintenance of the facility are therefore limited to minor repairs such as plumbing leaks, bulb changes, ballast changes, lock repairs, etc.) • Note that the WPD authorizes a total of one position for vehicle and facility maintenance. The Director works 12 hours per week, and is assisted by a Mechanic working 28 hours per week, for a total of 40 hours, or one FTE. The schedules worked are as follows: <ul style="list-style-type: none"> - Director works 7:30 am to 11:00 am, M, T, W - Mechanic works 7:00 am to 3:00 pm on M; 7:00 am to noon on T; 7:00 am to 1:00 pm on W, Th; and 7:00 am to 3:00 pm on F. • Responsible for snow removal from building site. • Maintains records on building maintenance. • Liaison with repair contractors. • Oversees cleaning contractor.

APPENDIX B

RESULTS OF THE EMPLOYEE SURVEY

As part of the Public Safety Study of the Police Department, the Matrix Consulting Group distributed an employee survey to sworn and non-sworn personnel of the Police Department. Although several staff interviews were conducted on a one-on-one basis, the survey provided all employees an opportunity to provide input, as well as the ability to quantify employee perceptions regarding a number of organizational aspects. In total, 39 employees completed the survey, including 28 sworn personnel and 8 non-sworn personnel, equating to a satisfactory response rate of 50%.

The employees were asked to rate statements (using a scale of 1 to 10), ranging from Strongly Disagree to Strongly Agree, and from Poor to Excellent in the following categories:

- Service to the Community
- Management / Administration
- Organization, Staffing, and Operations
- Equipment and Facilities

In general, employees have the highest levels of agreement regarding community perceptions, especially related to the thought that the Department provides a high level of service to the community, especially compared to other Police Departments in the area. Additionally, the other areas of strongest employee satisfaction were around the ability of personnel to work well with each other on calls for service, as well as high levels of satisfaction regarding the quality of equipment and facilities. Conversely, the lowest levels of satisfaction related to the lack of adequate

staff resources to meet the community's current law enforcement needs, as well as the staffing needed to perform safety and effectively during incidents.

1. THE MAJORITY OF RESPONDENTS AGREE THAT THE DEPARTMENT PROVIDES A HIGH LEVEL OF SERVICE TO THE COMMUNITY, AND THAT COMMUNITY POLICING IS A HIGH PRIORITY.

The following table summarizes the results of statements related to service to the community:

Statement	Disagree	Neutral	Agree
1. The Police Department provides a high level of service to the community.	0%	15%	85%
2. Compared to other police departments in the area, Watertown provides high levels of service.	0%	13%	87%
3. Town residents view our Department as a high priority.	13%	67%	21%
4. Compared to other police departments in the area, Watertown has a high amount of resources for police services.	8%	67%	26%
5. "Community policing" is a high priority for the Department.	5%	21%	74%

As shown above, the majority of respondents agree that the Police Department is provides a high level of service to the community, and that compared to other police departments in the area, Watertown provides a high level of service. On the other hand, the majority of respondents are neutral about whether Town residents view the department as a high priority, as well as whether the department has a high amount of resources for police services compared to other departments.

Based on our experience with other police departments and police department employee surveys, the percentage of agreement to the statements regarding levels of service to the community are generally in line with other police departments survey results.

2. THERE ARE SIGNIFICANT CHALLENGES RELATED TO PERCEPTIONS ABOUT ORGANIZATIONAL MANAGEMENT AND ADMINISTRATION.

The following table summarizes the results of statements related to service to general management and administration:

Statement	Disagree	Neutral	Agree
6. Our Department has a clear vision / direction for the future.	24%	53%	24%
7. I am kept informed of important Departmental information	38%	38%	23%
8. My opinions are listened to in this Department.	36%	46%	18%
9. My work performance expectations are made clear.	10%	46%	44%
10. When problems arise, they are resolved quickly.	32%	34%	34%
11. Staff are held accountable for their actions.	26%	44%	31%
12. Our Department seems to be innovative and progressive.	13%	49%	38%
13. Our Department does a good job planning and scheduling our work assignments.	21%	36%	44%
14. Our policies and procedures are up to date and consistently followed by staff.	21%	26%	54%

As shown above, there are significant issues from an organizational management and culture perspective, which need to be addressed. There was no clear majority of respondents expressing either agreement or disagreement with 8 out of the 9 statements, including:

- Lack of a clear vision / direction for the future
- Clear work performance expectations
- Staff not being held accountable

If we look at only the responses that were either agree or disagree, respondents believe that the department does a good job planning and scheduling work assignments, and that policies and procedures are up to date and consistently followed by staff. However, respondents don't feel as though their opinions are listened to, or that they are kept informed of important Departmental information. Based on our experience

with other police departments and police department employee surveys, these results highlight the need to address some issues in the department. Even for challenged police departments, we typically see around 30% to 40% in agreement for having a clear vision and direction for the future.

3. THE MAJORITY OF RESPONDENTS PERCEIVE THEIR STAFFING LEVELS TO BE INADEQUATE, BUT THAT PERSONNEL WORK WELL TOGETHER.

The following table summarizes the results of statements related to service to organization, staffing, and operations.

Statement	Disagree	Neutral	Agree
15. Staff resources are adequate to meet the current law enforcement needs of the Town.	56%	36%	8%
16. We have the staff we need to perform safely and effectively during incidents.	62%	33%	5%
17. Staff reductions in the past few years have impacted our ability to meet service expectations.	5%	26%	69%
18. Dispatch information provided to us on incidents is accurate and timely.	11%	39%	50%
19. Our personnel work well with each other on calls for service to which they respond.	3%	18%	79%
20. We receive the practical training we need to keep all of our skills high.	28%	41%	31%
21. Our Department places a high value on ensuring proper training for field personnel.	28%	38%	33%

As shown above, the majority of respondents agree that recent staff reductions have impacted the Department's ability to meet service expectations including the ability to perform safely and effectively during incidents. On the other hand, the majority of respondents believe that personnel work well with each other on calls for service and that dispatch provides accurate and timely information for incidents. There was no clear majority of respondents in regards to value the Department places on ensuring proper training for field personnel, or the training staff receive in order to keep their skills high.

Regarding workload, the following table summarizes the perceptions about workload activity:

Statement	% of Responses
About the right balance between time available and the amount of work.	8%
Sometimes my workload is heavy, but most of the time I can keep up.	65%
I could handle more work without being overloaded.	5%
I am always overloaded. I can never catch up.	22%

In comparison to other police department surveys, this is a typical response spread, with the majority perceiving themselves as busy, but able to keep up, and 22% perceiving themselves to be overloaded.

4. THERE ARE A NUMBER OF KEY PROGRAMS AND SERVICES THAT THE MAJORITY OF RESPONDENTS PERCEIVE AS GOOD AND EXCELLENT.

The following table summarizes the results of statements related to primary law enforcement programs and services.

Capabilities	Poor	Fair	Good	Excellent
23a. Response times to calls for service.	0%	0%	5%	95%
23b. Availability of backup for officer safety.	6%	11%	36%	47%
23c. Department capabilities for selective enforcement of targeted problems.	24%	29%	26%	21%
23d. Amount of proactive time in the field.	26%	24%	24%	26%
23e. The way officers deal with citizens.	0%	3%	22%	75%
23f. Follow-up investigations.	26%	17%	34%	23%
23g. Coordination between detective and patrol.	36%	33%	17%	14%
23h. Level of traffic enforcement.	3%	11%	22%	64%
23i. Quality of dispatch services.	8%	19%	28%	44%
23j. Availability and content of training.	28%	17%	31%	25%
23k. Crime analysis.	17%	20%	31%	31%
23l. Crime prevention programming.	47%	19%	17%	17%

As shown above, the majority of respondents rated “good” or “excellent” the following:

- Response time to calls for service

- Availability of backup
- The way officers deal with citizens
- Follow up to investigations
- Level of traffic enforcement
- Quality of dispatch services
- Availability and content of training
- Crime analysis

Although in general the respondents have various issues with management, administration, and staffing levels, there is widespread agreement that the Police Department personnel are doing a good job in fundamental law enforcement services, such as responding quickly to calls for service, backing each other up, etc. The areas of general concern for the respondents are the lack of proactive capabilities (i.e., crime prevention programming, and selective enforcement of targeted problems), coordination between detectives and patrol, and the amount of proactive time in the field.

5. THE MAJORITY OF RESPONDENTS ARE SATISFIED WITH THEIR EQUIPMENT AND FACILITIES.

The following table summarizes the results regarding equipment and facilities:

Item	Poor	Fair	Good	Excellent
25a. Vehicles	5%	22%	35%	38%
25b. Radios	8%	16%	27%	49%
25c. Officer personal equipment	8%	6%	33%	53%
25d. Information Technology	0%	3%	28%	69%
25e. Police Facility	3%	3%	8%	87%

As shown above, the majority of respondents were satisfied with their vehicles, radios, personal equipment, etc. These results are generally comparable to other police departments, and are a positive attribute for the Police Department, in that employees are being equipped with adequate resources.

6. OPEN-ENDED COMMENTS

The respondents were provided an opportunity to comment on a number of questions. Their responses are summarized in the following table based on the most common themes and answers:

Question	Summary of Key Answers
What are the most important strengths of the Police Department?	<ul style="list-style-type: none">• The people, their abilities, and their dedication to the community• The competency, experience, and training of officers• Quality equipment and facilities• Communication between line staff and departments
What are the most important improvement opportunities of the Police Department?	<ul style="list-style-type: none">• Greater staffing levels• More training• More proactive time for community policing• Better communication between management and line staff

In summary, the key themes from the comments was that staff generally view themselves as working well together and committed / dedicated to serving the community and delivery a high quality service, but that more needs to be done to put a greater number of officers on the street, give them more training, and greater time for proactive policing.

APPENDIX C

COMPARISON OF THE POLICE DEPARTMENT TO BEST MANAGEMENT PRACTICES

In this section of the report, the primary operations, staffing and management of the Watertown Police Department are compared with measures of effective organizations from throughout the country. The measures utilized have been derived from the project team's collective experience and represent the following ways to identify divisional strengths as well as improvement opportunities:

- Statements of "effective practices" based on the study team's experience in evaluating operations in other municipalities or "standards" of the profession from other organizations.
- Other statements of "effective practices" based upon consensus standards or performance goals derived from national or international professional service organizations.
- Identification of whether and how the department meets the performance targets.

The purpose of this assessment is to develop an initial overall assessment of departmental operations and identify both strengths and opportunities for improvement:

Performance Target	Strengths	Potential Improvements
FIELD OPERATIONS		
Proactive patrol time is between 40% and 50% after subtracting time handling calls for service and administrative tasks.	<p>The overall proactive time based on FY 2010 CFS and officer availability is approximately 62%, as shows in 4-hour time blocks:</p> <p>0000 – 0400: 73% 0400 – 0800: 80% 0800 – 1200: 55% 1200 – 1600: 49% 1600 – 2000: 56% 2000 – 0000: 61%</p> <p>These figures are based on the following:</p> <ul style="list-style-type: none"> • Total of 18,578 community generated calls for service for which a sworn officer provided the primary response (including regular patrol, sergeants, traffic units, etc.) • Actual and estimated time required to conduct various workload activities (i.e., handling time, back-up time, report writing time, booking time, etc.) • The number of available officers assigned to a Field Operations (including the Motor Officers). On average, there are 4.6 officers on duty in Watertown. The breakdown by shift is 4.4 day shift, 5.2 first half, and 4.3 second half officers on duty in the field per shift. 	The overall proactive time is higher than the benchmark range. This indicates that WPD should assess the allocation to officers assigned to patrol and/or its use of proactive time in traffic enforcement or other activities.
The deployment of personnel is regularly evaluated, and is based on the calls for service per day, per hour and area of the City.		Watertown PD does not regularly measure and assess calls for service volume per hour or day, as well as per Beat location.

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Performance Target	Strengths	Potential Improvements
<p>Are average response time targets (from dispatch to arrival) to calls for service being met?</p> <ul style="list-style-type: none"> • High Priority (1): 3 - 5 minutes • Medium Priority (2): 5 – 15 min. • Low Priority (3): 15 - 30 minutes 	<p>Watertown PD utilizes three priorities for CFS. The following provide the average response times per priority:</p> <p>Priority 1: 3 minutes and 53 seconds. Priority 2: 4 minutes and 11 seconds. Priority 3: 4 minutes and 50 seconds.</p> <p>Overall, the response time average is 4 minutes and 13 seconds, with the following showing the average per beat:</p> <p>These figures represent an excellent response time to all priorities of community-generated calls for service, especially as it relates to the lower priority calls for service. Response times are relatively fast, providing an indicator of an adequate level of patrol resources.</p>	
<p>Sergeant to Officer ratio is between 1:6 – 1:9</p>	<p>The overall sergeant to officer ratio in patrol is within this ratio at 1:7</p>	<p>The ratio of traffic sergeants to traffic officers is high at 1:2. It is important to note that during school times the traffic sergeant is responsible for 23 crossing guards in the town.</p>
<p>Specialized field services such as dedicated traffic enforcement, street crime enforcement, narcotics and vice operations are provided.</p>	<p>The WPD has allocated 2 dedicated Traffic Officers (one days and one on nights). Additionally, the WPD has one officer assigned to a narcotics task force.</p> <p>WPD also participates in the North Eastern Massachusetts Law Enforcement Council (NEMLEC) where 48 cities and town share resources to assist each other in critical incidents.</p>	

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Performance Target	Strengths	Potential Improvements
Crime analysis information is made to patrol and investigation personnel on a daily basis.	WPD utilizes a digital HQ program to provide daily updates on crime during patrol briefing. The Department utilizes a commercially available crime-reporting program to allow citizens to quickly review crime in any area of Town.	The Department could benefit from employing predictive policing showing hot spots for current crime activity in the Town to officer during patrol briefing.
The standard practice is for patrol personnel to routinely conduct follow-up (thru arrest) on minor crimes.	The field patrol officers are directed to complete investigations for cases that will not require extensive time for follow-up. If it is a case, which cannot be closed by arrest within the same day (or the next day), the case will typically be routed to the dedicated investigators.	
Approximately 20% to 30% of community-generated calls for service are handled through alternative service delivery (i.e., civilian response, web-based police reporting, etc.)	The WPD does make several common forms available for download on its website. The Department allows reports to be taken over the telephone on an appropriate basis.	The WPD does not actively utilize non-sworn personnel for field response or web-based police reporting for such cases as non-injury accidents, cold burglaries, etc.
Traffic Enforcement Index (citations and DUI arrests divided by injury accidents) is in the 1:35 – 1: 40 range.		WPD cited 9,935 moving offenses while there were 303 injury accidents and 39 DUI arrests, this is a ratio of 1:29 which indicates there is an accident for every 29 citations written compared to a best practices of 35-40 citations or warnings for every injury accident and DUI arrest. DUI arrests are low at 39 for the year 2010.
The field personnel are highly engaged in issuing moving citations during their proactive time.		Patrol officers should be more active in traffic enforcement in Watertown.
SUPPORT SERVICES		

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Performance Target	Strengths	Potential Improvements
<p>The number of active cases for “generalist” detectives averages 12-15 (weighted basis of person and property crimes).</p> <ul style="list-style-type: none"> - Dedicated person crime investigators average 8-10 active cases each. - Dedicated property crime investigators average 15-20 active cases each. 	<p>Watertown PD utilizes “generalists” for criminal investigations with the exception of one detective that focuses on sexual assault and domestic violence cases.</p> <p>Based on CAD data the number of sexual assault and domestic violence cases per month resulting in arrest averages 15.</p>	<p>The sexual assault and domestic violence detective has an average caseload of 21.8 per month which is high and is tasked with many duties that can be performed by a civilian.</p> <p>The generalist detectives currently average just below 15 assigned cases per month, but are also tasked with a number of ancillary duties to include crime scene processing and crime lab duties. This could result in an excessive workload for these detectives.</p>
<p>The number of Part I crimes per detective is in the 300-500 range.</p>		<p>Based on 2009 UCR Data there were 38 violent crimes and 630 property crimes in Watertown. This equals 334 crimes per detective.</p>
<p>Cases are screened for quality and solvability by supervisory staff before being assigned to detectives; a Sergeant formally reviews cases periodically.</p>	<p>The detective lieutenant and sergeant review all cases referred to investigations and assign the cases based on caseload, experience, etc.</p>	<p>WPD does utilize a solvability index to assist in determining which cases should be assigned based on proven solvability measures.</p>
<p>Supervisors actively monitor and manage caseloads.</p>	<p>The unit has weekly meetings to discuss case assignments, case status, and general issues</p>	
<p>An automated case management system is being used to assign and track cases.</p>	<p>The detective unit utilizes an automated case management system to track and assign cases.</p>	
<p>Supervisor/Detective (staff) ratio is in the 1:6 – 1:9 range.</p>		<p>The ratio of sergeant to detective positions is 1 detective sergeant to 3 detectives in the investigation unit and 1 sergeant to 1 detective in the prosecutor unit.</p>
<p>Specialized operations such as street crime enforcement, narcotics and vice operations are provided.</p>		<p>The WPD does not utilize specialized operations.</p>

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Performance Target	Strengths	Potential Improvements
All interviews of suspects are tape-recorded and/or video recorded.	The WPD has several interview rooms, which utilize audio and video recording capabilities.	
Trained Officers/Civilian employees are routinely available for evidence collection at felony crime scenes.		WPD does not make use of civilians to assist in the collection and processing of evidence from crimes scenes. All employees in the detectives unit are sworn.
Records systems are automated and integrated (CAD, RMS, report writing, etc.).	The records systems are automated and integrated. Officers are able to utilize MDT's in patrol vehicles to check vehicles and persons.	
Reports for in-custody persons are processed and submitted to the prosecutor within 48 hours.	The WPD processes these reports in less than 48 hours, and typically submits the paperwork to the District Court the morning after the arrest.	
Internal hard copy report distribution is minimal and completed daily.	The WPD patrol officers process their reports via electronic word document, which is then processed by the records personnel for manual input into the Records Management System (this process is primarily paperless).	The records personnel print out hard-copies of the report (after they are transcribed and entered into RMS) for review by Chief and command staff.
Records purging and destruction follow state guidelines.	WPD follows the established records retention schedule for misdemeanor and felony cases.	
The evidence room facility is secure and access is limited.	The WPD evidence room has electronic locking capabilities and with access limited to the prosecutor sergeant and detective charged with evidence responsibility.	

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Performance Target	Strengths	Potential Improvements
A percentage of evidence/property is audited (annually and regular spot audits) to provide for verified chain of evidence, etc.	<p>The Department has a policy in place requiring an annual audit of the property and evidence rooms.</p> <p>The policy also calls for random unannounced inspections by a ranking officer.</p> <p>A complete inventory of the evidence relocated occurred in September 2011 and all evidence is bar coded and entered into a computerized tracking system.</p>	
Officers receive at least 40 hours of training per year. In-service training includes hands on perishable skills training such as defensive tactics and high speed driving.	The training schedule ensures that a minimum of 58 hours of training is scheduled for sworn officers on an annual basis with several additional classroom-training opportunities provided.	
All employees, including managers, receive an annual performance evaluation based on clear standards.		WPD does not conduct annual performance appraisals on any employees due the labor agreement.
Patrol vehicles are targeted for replacement between 80,000 and 100,000 or 4-5 years.	The average age in years of current front line patrol vehicles is just over 2 years old and all patrol units average just over 3 years of service.	
The Department participates with local school districts in an SRO program; funding is shared.	The WPD has dedicated 1 School Resource Officers, assigned to the high school, for involvement with the City schools (which is 5 schools) The SRO participates on in High School campus readiness drills and investigates non-major crimes involving juveniles.	

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Performance Target	Strengths	Potential Improvements
The Department has an active crime prevention program and is involved with businesses and neighborhood groups.	The Community and Staff Development Division conducts quarterly customer satisfaction surveys to gauge how satisfied residents are with the police department response. Current overall satisfaction is very high at 94.5%.	The WPD is not very active with community, business or neighborhood groups.
The Department has an active Volunteer Program	The WPD utilizes unpaid interns to assist with administrative duties in Community and Staff Development.	The WPD does not have an active volunteer program.
MANAGEMENT / ADMINISTRATION		
The command staff structure of the Police Department has efficient and effective spans of control (approximately 1:4-6).	<p>The Captain of Administrative Services has a span of control of 1 to 6.</p> <p>The Captain of Field Operations has a span of control of 1 to 5.</p> <p>The Lieutenant of Community and Staff Development has a span of control of 1 to 9, including interns.</p>	The Lieutenant Detective has a span of control of 1 to 2.
Management staff developed and implements a strategic plan; annual planning session to update it.	<p>The WPD has a mission statement published on the website.</p> <p>The Department develops annual goals and objectives on a per fiscal year basis.</p>	The WPD does not have a comprehensive multi-year strategic plan in place, which identifies the goals, objectives, and performance measures for each of the operating units toward reaching its mission and vision. For example reducing injury accidents at intersections by x%, reducing part one crimes by x%, increasing clearance rates by x%, etc.

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Performance Target	Strengths	Potential Improvements
Department supervisors and/or managers attend professional development training (e.g. courses accredited by POST or IACP; FBI National Academy or Executive Development, etc.)	<p>Training is received upon supervisory and management promotion.</p> <p>Based on a review of training records, supervisors and / or managers are engaged in departmental training and attend a variety of additional training for skill development.</p> <p>Sergeants attend a two (2) week Massachusetts Police Leadership Institute course upon promotion.</p>	
The Department is involved in disaster preparedness / homeland security issues within the Town and regionally.	<p>The SRO attends critical incident planning meetings at all school campuses annually.</p> <p>The WPD participates in the North Eastern Massachusetts Law Enforcement Council (NEMLEC) where 48 cities and town share resources to assist each other in planning for and responding to critical incidents.</p> <p>The Department participates in emergency management planning & exercises conducted in the Town of Watertown.</p>	
The department has an integrated budget system and receives regular budget reports during the year; monitors expenses.	<p>The WPD follows the Citywide process for budgeting and expense monitoring. The WPD is on an annual budget cycle.</p> <p>The Captain of Administrative Services is responsible for monitoring the budget and expenses.</p>	
Individually assigned cars are minimized.	Of the 31 WPD vehicles, approximately 16% of them have individual assignments (i.e., the command staff and the detectives each have an assigned vehicle).	The Department does not have an adopted vehicle replacement schedule for marked or unmarked vehicles based on mileage or years of service.

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Performance Target	Strengths	Potential Improvements
Both formal and informal complaints are followed-up by Department supervisors.	The command staff review and follow-up on all citizen complaints, and make the determination to move forward with formal internal affairs investigations. The Operations Captain conducts serious internal investigations.	
The Department is involved in partnerships with other law enforcement agencies in regional law enforcement efforts and/or cost sharing of services.	The WPD participates in the North Eastern Massachusetts Law Enforcement Council (NEMLEC) where 48 cities and town share resources to assist each other in planning for and responding to critical incidents.	
An effective building security system to provide for employee safety is in place.	The building has an effective building security system to provide for employee safety. The main lobby is accessible to the public on 24-hour basis. A key card access system is utilized for access to any area outside the main lobby.	
The costs for overtime represent less than 10% of total regular salary costs.		According to Town budget documents FY 2010 overtime expenses were \$555,041, which equate to 12.5% of total regular salary costs. In FY 2011 the use of overtime improved to 11.6%, but is still slightly higher than benchmark standards. Smaller departments, such as Watertown, are typically at the high end of this comparative indicator. This is because the loss of one individual represents a relatively high proportion of the overall force.

**Management and Operations Study of the
Fire Department**

TOWN OF WATERTOWN, MASSACHUSETTS

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1 INTRODUCTION AND EXECUTIVE SUMMARY

This first chapter provides a summary of the process utilized by the Matrix Consulting Group to conduct this assignment, and provides an Executive Summary of our principal findings and recommendations.

1. INTRODUCTION

The Matrix Consulting Group was retained by the Town of Watertown to conduct and develop a Public Safety Study of the Watertown Police and Fire Departments (WPD & WFD). The scope of services defined in the Town's original request for proposals was comprehensive and focused on the following broad topical areas in the Fire Department:

- Identify service needed for Watertown based on the characteristics of the community, statutory and regulatory requirements for response and delivery and comparison with current ability to fulfill the needs and expectations.
- Identify the public safety risks and prioritize the level of risk that must be covered based on the data and operations of the public safety departments. The type, frequency, distribution, response times, mutual aid and/or contractor provided services, staffing policies, reporting of emergency and routine responses to all services will be included.
- Define services performed by each department, any duplication of services, and services that are not currently provided, but are needed.
- Review the current centralized dispatch operation located in the new police station for Watertown emergency public safety services, including the current organization, management/supervision, training, schedule and data/technology required for each department. Comparison with other similar communities and the possible feasibility of consolidation with other departments will be included for consideration.
- Assess the current plan for deploying the required number of public safety officers and supervisors, along with vehicles/apparatus used and recommend cost effective alternatives based on the type of incident for each department.

Evaluate whether there are recommended changes to improve efficiency and delivery of service.

- Evaluate schedules for assigning required personnel, including appropriate staffing, supervisors, management, and support staff to respond from the initial call for routine and emergency service through to generating the incident report and findings, and any subsequent proceedings such as court appearance, legal action, or insurance resolution or inspection.
- Identify the required staffing levels to meet the needs of the community in the most cost effective and complete manner and examine the use of overtime and leave time for each department and in Watertown and comparable communities including operating costs, personnel impacts, and impact on delivery of service and work load.
- Evaluate feasible options for public safety service and delivery to determine whether services can be effectively shared with other public and/or private entities. Evaluate needs for service backups. Review the possibilities and cost implications of contracted services vs. staffing in each department.
- Evaluate current and planned vehicle / apparatus configuration/ acquisition / replacement, maintenance and assignment practices to determine whether the existing operations are the most cost effective implementation.
- Evaluation of Departmental policies and procedures and collective bargaining provisions that impact the efficient operations of the department and public safety service delivery. Review education and/or prevention training requirements, and funding allocation in comparison to other communities and standards. Include possible recommendations that may improve the current policies, procedures, training and delivery of services in the most cost effective manner.

The project was conducted during the second half of 2011 and early 2012 by the Matrix Consulting Group project team. To conduct the assignment, the members of the project team engaged in a variety of activities, including the following:

- Met with senior management staff in the Town.
- Interviewed members of the command staff in the Fire Department.
- Conducted one-on-one or small group interviews with staff in all functions.
- Collected data describing workload, finances, policies and procedures, accreditation, salaries and wages, benefits, use of leave and other key descriptive factors.

- Develop a descriptive profile of the Fire Department that was reviewed with staff. This has been included as an appendix to this document.
- Developed, distributed and reviewed a confidential employee questionnaire that was focused on assessing employee attitudes about service levels, staffing, equipment, training, management systems, internal communications and other key factors. The project team did not receive any responses to the employee survey from Fire Department staff.
- Compared the WFD to a series of best management practices and attempted to conduct a survey of benchmark communities to identify potential issues for further study in the course of this project.¹ This has also been included as an appendix to this document.

The final step in this process has been the development of this final report. The following section provides a summary of the project team's key findings and recommendations.

2. EXECUTIVE SUMMARY

While management studies, such as this one, must concentrate on the possibilities for improvement it is also important to note key positives found by the project team:

- Likewise, the management team strives to work closely together and in an organized fashion – all assignments are documented and published so that responsibilities and assignments are clear.
- The Department has worked to maximize the efficiency of their operation given the personnel provided by developing a deployment plan under various staffing levels.
- The Chief has worked to ensure that there is consistency across all four shifts in terms of staffing, deployment and service delivery.
- The station network and unit deployment provide good coverage of the entire Town. The mutual aid system available in the Metro-Boston area is an excellent asset for providing additional staffing.

¹ Only a single community responded to the benchmark survey, the Town of Belmont.

- The Department operates an engine-company inspection program in an effort to provide additional support in the area of fire prevention.
- Fire apparatus maintenance is provided by an on-duty Firefighter, a cost-effective approach but one that may be difficult to replicate once the individual retires.
- The Department makes regular use of the incident command system (NIMS) providing for safe and effective incident management.
- The Department developed a Standard of Cover document identifying issues and capabilities within the Town. This document was completed in 2008 and should, according to the Center for Public Safety Excellence, be completed every five years.

The following chart provides a summary of the key recommendations found in the final report. Additional information relating to each recommendation can be found in the body of this document.

Finding	Recommendation	Fiscal Impact
A review of the organizational structure of the Fire Department shows that it is flat, with all key functions and operations reporting to the Chief. The agency is challenged, at times, by the lack of a second staff position not included in the bargaining unit. There is a Staff Services position that could be considered as unnecessary as the functions handled by the position could be reallocated, possibly to a civilian analyst. Alternatively, the Town could consider converting the SSO Captain into an Assistant Chief.	Do not create an Assistant Chief position.	None
	Consider elimination of the Staff Services Officer (Captain) position.	(\$109,000)
	To assist the Chief and to cover the administrative work currently conducted by the SSO (Captain) the Fire Department should be authorized to create a Fire Management Analyst position (civilian).	\$80,000
	Eliminate one of two clerical positions in the Fire Department, consolidating functions in the remaining position.	(\$45,000)
It is often challenging for supervisors to take necessary actions with respect to those they supervise if they are in the same bargaining unit.	Encourage the creation of a superior officers bargaining unit, similar to that found in the Police Department. This new unit should include Lieutenants and Captains. The Town should also work to take the Deputy Chiefs from the bargaining unit, making clear their role as part of the Fire Department management team.	None

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Finding	Recommendation	Fiscal Impact
Many key management systems are in place. However, there are gaps which include outdated policies, lack of data as an on-going management tool and so on.	Update the mission statements for the WFD. Update policies and procedures, including the development of a process by which policies can be reviewed annually. Expand involvement of staff in the review and updating of policies. Expand the use of data in decision-making and management on a daily basis.	None
While the Fire Department does an adequate job of focusing on skills training for fire / EMS there is little focus on management or supervision training.	<p>Develop a training program for company officers that results in all of them being trained to the level of "Fire Officer I" per NFPA standards. Deputy Chiefs should be trained to the level of "Fire Officer 2" per the NFPA guidelines. Provide ongoing management training, including risk management, personnel management, employee assessment, training skills development, etc.</p> <p>Focus on providing company officers and command staff members with ongoing management and supervisory training. In addition to the Fire Officer training recommended previously, the Department should also provide company officers with training on educational methods, risk management and personnel management. The Civil Service is considering the possibility of granting experience points to those candidates who have obtained Fire Officer 1 and / or 2 – but at this point it still cannot be established as a prerequisite for a promotion.</p>	\$50,000
Company officers (lieutenants and captains) do not take a leadership role in providing training.	Company officers should take a more active role in providing daily training to their assigned personnel. The Fire Department should investigate opportunities to utilize training available from MIIA.	None
Documentation of all training hours is a critical risk management tool.	Ensure that all training hours are being documented, including those conducted in-station.	None
The Fire Department does not currently conduct post-incident critiques of major incidents. This results in the loss of a major learning opportunity.	The WFD should assign Deputy Chiefs and other staff to develop post-incident reviews following all structure fires, any incident where there is a firefighter injury, technical rescue, etc.	None

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Finding	Recommendation	Fiscal Impact
Given recent occurrences in the broader fire / rescue community this is an opportune time to focus on accountability, risk management and other key management systems.	The Department needs to focus on organizational development and team building to focus attention on and improve, systems of accountability.	None
While there is an adequate training program in place, there is little focus on documenting personal or group performance.	Develop an employee appraisal approach that either focuses on the performance of the individual or on the performance of the company unit. This should be focused on improving training and preparedness of personnel.	None
As with many fire department, the WFD utilizes many informal methods to share information, to have meetings between the Chief and other officers and so on.	The Department needs to focus on organizational development and team building to focus attention on and improve, systems of accountability.	None
Policies and procedures are not all up to date and do not cover all key areas.	The Fire Department should develop a new, comprehensive, policy and procedures manual. The Department should first take steps to identify examples from Massachusetts to simplify their development. Second, a committee of staff from all ranks should be formed to ensure that the adaptation of policies and procedures to the Fire Department is done with appropriate focus on the needs of the community and the WFD.	None
There are no performance measures or targets in place for the Fire Department.	<p>The Town and the Department should work collaboratively at developing and adopting community-wide standards of performance, including response times and acceptable levels of risk.</p> <p>The Department should implement a formal Management Information System that identifies and adopts critical performance indicators and tracks these on a daily basis.</p> <p>The Fire Department, in conjunction with the Town's administration and policy makers, should work to develop specific performance indicators for the WFD. The Department's financial management systems are adequate for ensuring that budgetary and overtime issues can be identified quickly. Once these are in place, simple management systems focused on tracking these indicators should be developed by the Department.</p>	<p>None</p> <p>Less than \$20,000</p>

TOWN OF WATERTOWN, MASSACHUSETTS
Management and Operations Study of the Fire Department

Finding	Recommendation	Fiscal Impact
Risk management suggests that employees should be evaluated periodically for criminal and driving record changes.	Develop policies and procedures for conducting background checks examining both criminal and driving histories. These are done before new employees are hired, and should be done on an annual basis for existing employees.	\$10,000
The use of technology in the management and operations of the Fire Department is behind that of others in the industry and in the Town. A recent grant application for laptops in fire apparatus was not awarded.	The Fire Department should undertake several steps to enhance the utilization of information and analysis in support of decision making. The Department should also take steps to improve staff accountability, improve new-chief officer management training and the adoption of key performance measures to be regularly tracked.	Unknown
The Fire Department relies on a firefighter to serve as their primary vehicle mechanic. This individual is eligible to retire, and no plans have been made to replace him.	The Fire Department should work with other Town units to ensure continued in-house (i.e., in-Town) mechanics with the capability and certifications for working on fire apparatus. The current incumbent performs a wide range of key repairs including working on the pumps. These skills may be difficult to replicate among current staff, and so the Department and the Town should begin considering the budget implications of expanding their use of contractors to complete specialized repairs.	Unknown
The Fire Department has a fleet of vehicles appropriate to its mission. However, there is no program for replacing vehicles in place that has been adopted by the Town.	Make revisions to the vehicle and apparatus replacement plan that replaces an engine every 5 years, a ladder truck every 10 years and other vehicles every 7-9 years.	Capital Cost
For the future, the Town should consider removing the Chief's position from Civil Service to broaden the pool of potential applicants.	The Town of Watertown should remove the Fire Chief from Civil Service and should conduct a Commonwealth search when the next Chief is hired. Part of this process should include assessment centers, interviews, background checks and other methods for ascertaining the appropriateness of the candidate.	None

TOWN OF WATERTOWN, MASSACHUSETTS
Management and Operations Study of the Fire Department

Finding	Recommendation	Fiscal Impact
<p>The Fire Department currently uses approximately 1.3 personnel per shift on overtime (with approximately ½ of shifts having no personnel on overtime at all). This is approximately 8% of shifts covered using overtime – well within the range expected to be found in well-managed public safety agencies.</p> <p>The current deployment plan for Operations does not allocate personnel to both Rescue units at all times – an issue given that 59% of the Department’s workload is EMS.</p>	<p>Deploy personnel so that Rescue 2 can be staffed at all times. Focus on staffing fire units at three personnel if at all possible. Both of these objectives are achieved by reducing staffing in Car 2 by utilizing the Firefighter assigned as the Deputy Chief’s driver to other functions. The project team believes that the appropriate target staffing for the Town is for there to be a minimum of 16 personnel on-duty – this allows for three engines, two ambulances, a ladder and a chief officer to be deployed at appropriate staffing levels.</p>	<p>None</p>
<p>Current response policies seem to over-dispatch units to certain call types.</p>	<p>The Fire Department should work to reduce the number of units dispatched on a number of call types. The implementation of a call triaging system, particularly for EMS calls, would potentially reduce the number of Fire Department vehicles routinely sent on calls. This should include increasing the number of calls to which only a single engine is dispatched.</p>	<p>Unknown</p>
<p>Current response times appear to exceed targeted levels, with emergency EMS calls taking longer than fire calls.</p>	<p>The Fire Department must work closely with the Police Department in order to begin tracking all necessary response time elements. Once these data are being captured, particular attention should be paid to the call processing time (in dispatch) and the turnout time (in the stations) – particularly for emergency calls.</p>	<p>None</p>
<p>Current policies allow for only four Officers to be on duty.</p>	<p>Work to maintain, through improved scheduling of time off, a target of five officers per shift. Continue current practice of using overtime to maintain a minimum of four officers per shift should continue under all but the direst financial situation. The Town should work to change the contract so that no more than two (2) officers can be off on scheduled leave per shift. The contractual language stating that “25% of the complement” can be off should be modified, as noted previously to allow fewer total personnel off and to distinguish between officers and firefighters, allowing only one officer off at a time if that will leave the Department with fewer than five (5) on duty.</p>	<p>None</p>

TOWN OF WATERTOWN, MASSACHUSETTS
Management and Operations Study of the Fire Department

Finding	Recommendation	Fiscal Impact
The Fire Department's personnel can be better utilized during their shifts doing things like training and conducting other tasks in support of their operations. Opportunities exist to shift workload to line companies, thereby increasing productivity.	The Fire Department should engage in at least one-hour of pre-planning activity per day per company. If this approach is taken, more than 700 pre-plans could be completed or updated on an annual basis. Initially, facilities should be broken down by first due ² area, with some exceptions made to expand the scope of the less active companies. Consider adding a layer in the GIS for pre-planning so that the WPD and the WFD have access to these plans.	None
Deputy Chiefs are the primary management of operations in the Fire Department. EMS operations are the majority of the Department's service provision, yet Deputy Chiefs do not respond to "routine" medical calls.	Deputy Chiefs should respond to all threat to life medical calls, and possibly to randomly assigned non-life threatening calls as well.	None
AED's are a proven way of improving survivability from sudden cardiac arrest.	The Town should adopt an ordinance requiring the presence of AED's in all medical establishments and places of public assembly. The Fire Department and the Town should work to assist with the placement of these critical devices in locations that cannot afford the full cost of one through a grant program. Furthermore, their location should be added into the CAD system so those near the victim of a heart attack can be directed to one while awaiting the arrival of EMS personnel. The cost of the AED's should be borne by the provider.	None

² The 'first due' area is an engine company's primary area of responsibility – a geographic area of the Town that is centered around the station from which the engine (or other unit) responds. This results from the typically static deployment model used by most fire / rescue agencies, including the WFD.

TOWN OF WATERTOWN, MASSACHUSETTS
Management and Operations Study of the Fire Department

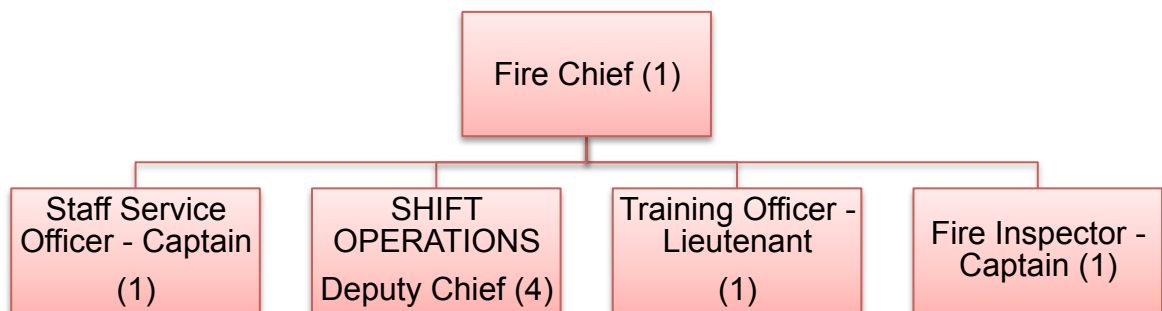
Finding	Recommendation	Fiscal Impact
The Town needs more than one ambulance at times. A recommendation in this report is to shift staffing to ensure that Rescue 2 is staffed at all times.	The project team recommends that the Fire Department and Town Manager seek to work with neighboring communities by offering them the services of Rescue 2 on a cost-sharing basis. Under this model, each community would keep the revenue associated with the calls run in their jurisdictions, and would pay a proportional cost of staffing the ambulance. For example, if one other community participated, the cost reduction to Watertown would be 50% the cost of staffing the ambulance – or approximately \$300,000.	(\$300,000)
The two departments have not developed a consistently effective approach to 'customer service' and problem resolution in emergency communications.	The two public safety departments should develop 'customer service' approaches to address and resolve problems in joint dispatching.	None

2. ANALYSIS OF MANAGEMENT SYSTEMS AND ORGANIZATION

This chapter focuses on the key management systems used to oversee operations and personnel as well as the organizational structure necessary to effectively and efficiently manage operations in the Fire Department.

1. THE CURRENT ORGANIZATIONAL STRUCTURE OF THE FIRE DEPARTMENT IS RELATIVELY FLAT WITH ALL FUNCTIONS REPORTING TO THE FIRE CHIEF.

The Watertown Fire Department is managed by the Fire Chief and four Deputy Chiefs. Each of the Deputy Chiefs is responsible for managing one of four work groups as well as a number of ancillary functions (training, fire prevention, maintenance and others). The current organizational structure is depicted in the exhibit, below:



Note that the current organizational structure is relatively straightforward – with few positions dedicated to purely administrative functions. The Department has seen reductions in the area of public education and in Operations Division personnel.

2. EVALUATION OF ANY ORGANIZATIONAL STRUCTURE RELIES ON THE IDENTIFICATION OF FORMAL CRITERIA FOR ASSESSMENT.

In order to evaluate the organizational structure of the Watertown Fire Department, the project team first had to identify the criteria by which the organization structure would be judged. The paragraphs, that follow, describe those criteria as well as describe what is meant by each of them:

- **Accountability and responsibility is clearly identified:** The organization must be consistent with the concept that clear lines of authority and decision making are essential for any organization to achieve excellence. Areas of responsibility are clearly delineated and points of accountability are readily identifiable.
- **Span of control or communication is optimal:** Effective organizations are structured so that lines of communication are identifiable and there are multiple reporting relationships, responsibility for communication and control are clearly identified and understood.
- **There are essential checks and balances in place where necessary:** As it relates to this project, checks and balances are necessary in the area of clinical performance review as opposed to operational performance review.
- **Structure is based on task requirements and work flow as opposed to specialized skills of individual members:** There is a tendency in some organizations to organize work patterns around the specific passions or skills of individual members. This results in high friction levels of most work processes and the relationships between group members and groups them.
- **Similar titled positions have similar responsibilities and levels of accountability:** The organization should be structured such that decision making authority and the ability of decisions to impact the organization in a strategic way are all found at similar levels of the hierarchy.
- **Support functions are logically grouped and do not, through this grouping, create additional layers of oversight:** Organizational structures should group support functions together, separated from operations, only when the scale and scope of the operation requires it.

The section, that follows, provides our analysis of the current organizational structure and opportunities for improvement.

3. THE CURRENT ORGANIZATIONAL STRUCTURE MEETS THE CRITERIA FOR AN EFFECTIVE ORGANIZATION AND SHOULD BE LEFT UNCHANGED.

The current organization of the Fire Department is along fairly typical lines, as shown, in the exhibit several pages prior. The exhibit, that follows, provides a graphical assessment of the current organizational structure. Note the “√” marks in a box indicate that the organizational unit meets that criteria described in the preceding section of the report:

Organizational Unit	Authority	Span of Control	Checks and Balances	Based on Work Flow	Similar Titles / Similar Duties	Support Integrated into Ops
Office of the Fire Chief	√	√	√	√	√	√
Operations	√	√	√	√	√	√
Fire Prevention / Training / Maintenance	√	√	√	√	√	√

The paragraphs that follow provide a summary of the project team’s findings and conclusions regarding the current organizational structure of the Fire Department:

- The Department is organized along traditional lines – with Deputy Chiefs and the Staff Service Officer (Captain) reporting to the Chief, with the Fire Inspector and Training Officer (who is also the EMS Coordinator) reporting to two Deputy Chiefs.
- Like many Massachusetts Fire Departments, the Chief is the sole employee who is not represented by one of the bargaining units. In this case, the Deputy Chiefs and all subordinate employees are all part of the same bargaining unit.
- The Chief has six direct reports including the four Deputy Chiefs, Staff Service Officer (Captain) and the Lead Clerk. This is within a reasonable levels of supervision, when the range of 6-9 direct reports are generally accepted as appropriate.

- The Captain role on the shift has been reduced from one per company (distributed across the shifts) to one per shift spread between Stations 2 and 3. Station 1 has a Captain assigned to this role, they serve as a back-up to the Deputy Chiefs on each shift, and then serve the same basic roles as the Lieutenants assigned to the engines.
- The Fire Department has, effectively, a single position assigned to staff roles for purposes of addressing research and development. This places a need for support roles on the part of the Deputy Chiefs and company officers assigned on the shifts – a common solution in Fire Departments.
- Company Officers do not currently have significant support roles assigned. The Fire Department should assign support functions to all Lieutenants and Captains. The Department has effectively distributed administrative responsibilities to the four Deputy Chiefs.

The project team considered two alternatives:

- Creation of an Assistant Chief position.
- Elimination of the Staff Services Officer (Captain) position.

The table, below, provides a summary of the benefits and challenges from making these changes:

Alternative	Benefits	Challenges
Create Assistant Chief Position	<ul style="list-style-type: none">• Provide for a second position outside the bargaining unit.• Ensure clear chain of command in the absence of the Chief.	<ul style="list-style-type: none">• Additional cost from either conversion of an existing position or creation of a new position.
Eliminate Staff Services Officer (Captain) Position	<ul style="list-style-type: none">• Reduction in personnel costs in the Fire Department – approximately \$109,000 in salaries and benefits.• Shifting of administrative duties to the Deputy Chiefs and other company officers would build on current approach of distributed administrative functions.	<ul style="list-style-type: none">• Elimination of the position would also eliminate the single-position focus for administrative functions, research, etc.

Other issues identified by the project team while examining the organization structure and its impacts on the operations of the Watertown Fire Department is that of the distinction between line, supervisors and management in the Fire Department. The project team offers the following observations:

- The Fire Chief is the only sworn member of the Fire Department who is not in the bargaining unit.
- Lieutenants, Captains and the Deputy Chiefs are in the same bargaining unit as the line Firefighters. This can pose a challenge for supervisors when they need to discipline or otherwise direct the line employees.

The Fire Department, the bargaining unit and the Town should work together to address these issues – by removing the Deputy Chiefs from the union overall and by creating a separate superior officers unit, similar to that found in the Police Department, for the Lieutenants and Captains in the Fire Department.

The project team also examined the roles and responsibilities of the two support positions found in the Fire Department. One is assigned to the Chief's Office and the other in support of Fire Prevention. The project team believes that these two positions could be merged into a single full-time position if the position of a management analyst is added to the Fire Department as discussed later in this chapter. In this capacity, the remaining lead clerk position could continue providing administrative support to the Chief while scheduling and performing data entry for Fire Prevention. This position consolidation could also be supported by taking the following steps:

- Making increased use of in-field data entry by the Fire Inspector.
- Hiring a management analyst in the Fire Department (discussed in a later section).

Taking these steps will allow administrative, research, scheduling and other tasks to continue to be shared between two positions – however, one will be trained to provide a higher level of service including analytical and research support for the Chief and other members of the command staff. This makes the addition of the management analyst position more cost effective.

Recommendation: The Fire Department's organizational structure is appropriate given the nature of the missions assigned to the Department. Fire Prevention is equally high in the organization with Suppression and Training.

Recommendation: The Fire Department and Town should consider eliminating the Staff Services Officer (Captain) position for annual savings of \$109,000.

Recommendation: Town, Fire Department and bargaining unit should work to create a new superior officers unit for Lieutenants and Captains. The Deputy Chiefs should be separated from the union altogether to improve management and supervisory capabilities in the Department.

Recommendation: Eliminate one of the two clerical support positions in the Fire Department, merging the roles and responsibilities of the two functions. This would result in annual savings of \$45,000.

4. THE FIRE DEPARTMENT WOULD BENEFIT FROM THE CREATION OF A NEW MANAGEMENT ANALYST POSITION TO SUPPORT THE USE OF DATA IN DECISION MAKING.

This section addresses the key management and information systems that should be in place within a modern Fire agency such as the Watertown Fire Department. The project team examined key management systems relating in the Department. These systems are critical to ensuring that the Department operates both effectively and efficiently. The key elements of a successful management system for a Fire agency include the following:

- **Formal Interaction** – Does the management team interact in formal meetings (set times, regular schedule, with agendas, etc.)? Are different groups of managers brought together to focus on key issues, to communicate general issues, to work on budget information, etc.?

- **Utilization of Data in Decision Making** – Does the Department make use of the data collected from calls, quality assurance reviews, inspections, etc. to make informed decisions? Are analytical methods regularly employed to make decisions regarding deployment, budgetary expenditures, etc.? Is there a culture of making decisions using analysis rather than anecdotal information? Are there sufficient staff resources to support analytical decision-making?
- **Accountability Mechanisms** – Is there a mechanism in place by which staff can be held accountable for assignments made? Do these systems provide for accountability the same way throughout the organization?
- **Formal Policies, Procedures and Protocols** – Are key policies, procedures and protocols formally documented? Are they regularly reviewed and updated? Does the review of these key documents involve a broadly based group? Are policies and procedures widely available to all staff? Are staff held accountable for compliance? Is there a formal “professional standards” function within the Department?
- **Management Training** – Does the Town and the Department provide formal training to officers as they are promoted and as part of their continuing education? Do officers receive advanced tactical training, risk management training, personnel policy updates, etc.?
- **Utilization of Technology** – Does the Fire Department make maximum use of technology to enhance effectiveness and efficiency? Are current investments being used effectively? Has the Department planned to adopt technology in the future that will enhance services or management of services?

The project team has the following observations and findings regarding the management of the Fire Department:

- The WFD also makes use of ad hoc groups to address special projects.
- The project team found that the use of data by the Fire Department occurs sporadically if at all. Examples include the following:
 - Operations data is not analyzed by unit, station, and Department-wide etc. to monitor performance of individual units or officers.
 - Response time data are not tracked at a level of specificity that is required in modern fire / rescue management. These data are not regularly analyzed or evaluated at any level of the organization. The Town’s CAD software and dispatch personnel are capable of tracking data that are not

- currently being tracked (such as when the unit acknowledged receipt of the call, when the fire unit when en-route, etc.).
- Training is not, at present, being tracked by individual. There are repositories of training data in several places in the Department.
 - Deputy Chiefs and others are rarely expected to utilize formal methods for evaluating issues assigned outside of operations – for example, the decision to adopt a new piece of equipment or a new tactic is only undertaken following a formal research process.
 - There are no analysts to support the operations of the Fire Department. This means that senior staff are left to perform their own research, rely on less senior sworn staff to perform various analytical tasks, etc.
 - Extensive data are collected in various operational areas through the CAD / RMS system, training records, etc. However, many of these data cannot be easily accessed under current information systems.
 - There is not a particular culture of “analysis” within the Fire Department. The awareness that data can provide powerful – critical – information for Fire managers is growing nationally. Senior staff will need to be able to make a case for additional resources predicated on proof derived from analysis – rather than on anecdotal approaches that have historically been acceptable. This change will need to be developed and fostered by the command staff.
- The Fire Department does not have a systematic method for ensuring accountability for staff assignments or other routine tasks. The current approaches rely upon the institutional memory of the command staff as a group to ensure compliance by individuals. Given the complexity of the WFD, this approach can no longer be viewed as appropriate. The Town should obtain a software driven solution that allows assignments to be made and tracked and to allow progress on assignments to be followed. It is equally important that such a solution does not add excessively to the workload of the command staff.
 - The Fire Department does not currently maintain a “command college” for its Chiefs. Additional support for new chief-level officers would be appropriate – particularly focused on personnel, risk management and other key management skills not typically covered as part of company officer training. Most of the Chief Officers have been to the Chief Officer Training program at the state Fire Academy.
 - The Fire Department should begin to engage in a number of projects focused on enhancing the utilization of technology in the field and in the administration of the Department. The project team found the following examples:

- There are no computers in the fire response vehicles – an increasingly common tool found in progressive fire / rescue agencies.
- Personnel are not able to access critical records on-line from their vehicles, leaving personnel using hard-copy books for limited pre-incident plans.
- There are no GPS or mapping solutions being utilized by the Fire Department. This represents a lost opportunity in terms of improving response time management.

The project team recommends that the Fire Department undertake the following actions to make improvements in management and oversight:

- The Fire Department should develop an accountability system to ensure that all assignments are followed-up appropriately. A simple in-house system can be developed using common office programs until a more sophisticated system can be obtained. An electronic system is useful since issues can be sorted by due date, individual, status, etc. The tracking system should have (at minimum):
 - Assignment
 - Data assigned
 - Due date
 - Responsible Individual
- Key measures should be identified by the senior staff and tracked regularly. Examples might include:
 - Reflex time (overall, by station, by unit, by major call type)
 - Dispatch processing time
 - Drive time
 - Call concurrency
 - Response times by time of day, etc.
 - Number of inspections per inspector

- Begin a process of information systems enhancement in the Department – including consideration of contracting for a full needs assessment.
- Create a new analyst position, assigned to the Office of the Chief. This position, similar in training and background to crime analysts typically found in police agencies, should be a civilian who is trained as an analyst – familiar with spreadsheets, statistics, use of analytical tools including GIS. The time of this new position should be dedicated to both routine tasks (providing management reports focused on response performance, leave utilization, etc.) and to provide support to special projects undertaken by the command staff of the Department. This will be critical in supporting the Department if it is to move towards a culture which utilizes data for decision-making.

Recommendation: The Fire Department should undertake several steps to enhance the utilization of information and analysis in support of decision-making. Included in these steps should be the creation of a new Fire Analyst position for a total cost of \$80,000 annually. The Department should also take steps to improve staff accountability, improve new-chief officer management training and the adoption of key performance measures to be regularly tracked.

5. THE FIRE DEPARTMENT CAN CONTINUE TO IMPROVE ON MANY BASIC MANAGEMENT SYSTEMS.

The Watertown Fire Department represents a multi-million dollar investment on the part of the community and its taxpayers. For the investment, the community expects to receive effective and efficient fire, rescue and EMS services. In order to assure the community that these funds are well spent and that operations are being managed effectively, the Fire Department must have data-driven management systems in place. This is similar to a common practice in law enforcement agencies – CompStat – where command staff meet with one another and focus on management issues in the Department. These style meetings are most common in police departments, but are slowly being adopted by progressive fire departments nationwide. The focus of these meetings should be on service delivery indicators, issues where units / shifts are not meeting standards, etc. In general, management systems should be able to provide managers with insight into the following critical areas:

- Performance responding to emergencies.
- Training for both fire and EMS skills.
- Use of leave (sick, vacation, etc.).
- Budgetary performance.
- Overtime utilization by cause.
- Fire / EMS “run” reports and billing documentation.

The Matrix Consulting Group found that the Department’s key management systems vary in their utility and in the level of utilization by the command staff. Our findings are summarized, below:

- Systems that provide for financial reporting are present and are under the control of the Town. Systems are in place which enable the Department to monitor budgetary performance. These are linked to the Town’s financial management systems. The project team found that the Department reconciles its own performance against the budget in an on-going manner, enabling potential budgetary issues to be identified quickly.
- Systems are also in place that enable detailed tracking of the use of overtime, the use of leave, etc. – all key indicators on the utilization of personnel. The project team found that the Department maintains detailed accounting of all overtime utilized by reason.
- The Department does not consistently utilize available data to assess its own performance internally. The project team found that key data elements were not being captured by the dispatch process. These data would enable the Department to assess its own “reaction” time to calls for service – this can not be reliably done given the issues, found by the project team, with the data in the various reporting systems in the Fire and Police Departments. This can be done with the current systems, and should be implemented by consistently tracking the time stamp for ‘en-route’ which will allow drive time to be calculated and will allow reaction time to be calculated.
- There are few internally developed performance objectives for response, on-scene activities, etc. which are actively measured. Personnel are not held directly accountable for their individual performance.

(1) The Fire Department Has Been Informally Managed in the Past.

The matrix, which follows, provides a summary of our initial findings regarding management systems in the Fire Department:

Issue	Evaluation
How does the Fire Department plan, schedule and control the work to be done?	<ul style="list-style-type: none">• Matrix Consulting Group found that the WFD has generally been informal with the way in which it plans, schedules and controls the non-emergency work to be done. The primary exception to this is the way in which the Department controls its field operations. In this case, the project team found that the WFD relies on documented incident command systems (how emergencies are managed in the field).
Does the Department use regular meetings to formalize management?	<ul style="list-style-type: none">• The Department has reintroduced the use of management team meetings to improve the management of the Department. These meetings occur regularly and involve all command staff personnel.
How is long range planning accomplished in the Department? Are managers using information to assess operational issues?	<ul style="list-style-type: none">• The project team found that there is no documented long range planning process for the WFD.• Individuals may have planning as part of their responsibilities but this is typically limited to a specific area and is not part of an overall approach to planning and development.• The project team found that information is used by some managers to assess some operational issues. However, we also found that the capabilities of the records management systems and the CAD were not being fully utilized.
Are vertical or horizontal communications within the Department adequate?	<ul style="list-style-type: none">• Internal communications within the WFD has historically been an issue of some concern.
Are the Department's policy and procedure manuals/documents complete? Do major gaps exist relating to operations?	<ul style="list-style-type: none">• The policies and procedures are incomplete and do not cover a wide range of key topics and operational issues. The Department's management team is aware of the lack of complete policies and procedures, and limited efforts have been made to address these challenges.
Are policies and procedures consistently applied in the Department?	<ul style="list-style-type: none">• The project team found that policies and procedures, as they exist today, are consistently applied in the Department and are used to consistently hold personnel accountable.
How effective is the Department's approach to incident command?	<ul style="list-style-type: none">• Generally, the Department functions with an effective incident command structure at all major events. One area that could be enhanced is the designation of a separate safety officer (person responsible for maintaining positive awareness of the location of each individual at the scene) for each major incident – a role that is handled in combination with other tasks currently.

Issue	Evaluation
Are there accurate and timely measures of the performance of the Department?	<ul style="list-style-type: none"> • The data exists with which the WFD could monitor its performance on a daily basis. • However, the project team found that data is not used to evaluate service delivery or performance on a regular basis (even when reports are generated regularly they do not appear to be used to impact operations regularly).
Does the Department have systems in place to tie performance measurement and goals to each employee to make them accountable?	<ul style="list-style-type: none"> • There is no such plan in place.
What improvements are needed in records and financial management?	<ul style="list-style-type: none"> • The project team identified no major issues in these areas.
How are managers and supervisors trained and supported in the Department?	<ul style="list-style-type: none"> • Managers and supervisors are provided with both internal and external training opportunities. However, there is no requirement that personnel receive training upon obtaining a new rank.
Do the Town Manager and Town Council receive the information that they need to provide an on-going assessment of the performance of the Fire Department?	<ul style="list-style-type: none"> • The WFD does not provide the Manager with weekly reports showing activity, response times, etc.
Are there opportunities to improve public information?	<ul style="list-style-type: none"> • The Fire Department could take steps to enhance public access to information and performance through publications, the Town website, etc.

In general, the project team found that the Fire Department has been and continues to be somewhat informally managed. There is little use of available data as a management tool, few meetings of the command staff (this is changing) and little in the way of long range planning. The Department can be characterized as reactive rather than proactive in the way it addresses issues and challenges. Despite this, the project team found that the in-field delivery of services continues to be done at a high level.

(2) The Fire Department Should Take Several Steps to Formalize Management of Operations and Administration.

The Fire Department will benefit from improved efficiencies and effectiveness if it addresses the issues identified in the preceding sub-section. The Department has been working to increase the formality with which the Department is managed on a day-to-day and long-term basis. The project team believes that the Department should take the following actions:

- Develop a set of performance measures. This is a critical step in the process of improving the management of the Fire Department. Without a set of formal expectations, it is impossible to hold personnel accountable on a daily basis. The list, which follows, should be viewed as only the beginning of the development of such a set of performance measures:
 - **Suppression:**
 - Out the door to calls for service in less than 60 seconds.
 - First unit on-scene within four minutes.
 - Full response on-scene within eight minutes (all call types).
 - Minimum of two hours of training on at least 90% of shifts in a month.
 - All personnel involved in patient care in at least 15% of calls for their station in a given month.
 - **Fire Prevention:**
 - All target buildings receive an inspection within the annual turn-around time.
 - Inspectors conducting between 10 – 15 inspections per day per Inspector.
 - **Emergency Medical Services:**
 - All personnel operating under an active and current license coupled with a 100% success rate of renewing all licenses within the timeframe.

- All paramedics participate in at least 15% of calls for service handled by their station each month.
- Paramedics and EMT's are all being subject to quality assurance each month.
- **Training:**
 - Development of a training curriculum for in-service training. Courses maintained and updated as required by circumstances.
 - Personnel receiving training hours targeted in annual training plan.
 - Training at training center covers both EMS requirements and at least 40 hours per year in additional fire / rescue training.
- Develop a comprehensive master schedule for each year (this is addressed in detail in the following sub-section).
- Assign responsibilities for long term planning to various members of the command staff (including Deputy Chiefs). Each individual should be given a particular area of responsibility upon which to focus. Each staff person should be responsible for researching and bringing key issues to the attention of the other members of the command staff.
- As part of the weekly staff meetings, the various personnel should be responsible for reporting their progress as well as identifying areas where they need additional assistance. These meetings should be used to identify issues that may impact resource utilization, suppression crews, etc. This would include:
 - **Emergency Medical Services** would address issues of training, quality assurance, changing protocols, issues identified in the field, etc. This may also include issues such as alerts from local hospitals and public health agencies, etc.
 - **Fire Prevention** would report on their statistics from the preceding week / month. This should indicate which major properties have been inspected, any major issues identified in the course of the inspections for the week that the suppression crews should be aware of, upcoming fire prevention / education events that suppression should participate in, etc.
 - **Training** should review the upcoming training schedule, including what needs to happen with suppression personnel in terms of scheduling, rotating personnel into the Training Division, etc. This is also the

opportunity for all personnel to identify issues that should be focused on in upcoming training sessions.

- **Suppression / Operations** should review major incidents from the past week. This should also include identification of any areas that require additional review for quality assurance or issues identification.
- **Administration** should review the progress the Department is making in relation to the annual budget. This should include a re-cap of where the WFD is with its expenditures of overtime, training funds, operating costs, etc. Personnel with responsibility for various elements of the budget should be required to provide justifications to the command group as necessary.
- The Fire Chief should require weekly reports from each member of his command staff. These reports should identify major issuers, accomplishments, challenges, etc. Command staff members should focus on the use of data to support their summary of activities. These should also be compared to performance measures established by the Fire Department.

The objective of the Fire Department should be to formalize the way the activities and personnel are managed.

(3) The Fire Department Should Engage in a Master Scheduling Exercise Each Year to Improve Coordination of Activities.

The Fire Department does not currently engage in any process that could be described as long term planning. The project team has recommended that personnel in the command staff be assigned to take responsibility for tracking changes in various subject areas. The project team also believes that the Department would gain from an exercise in developing an annual schedule showing key activities and events. Such an exercise has the following benefits:

- Forces the Department to think through its year, to identify its key goals and objectives in a formal process.
- Allows personnel in various commands (such as Fire Prevention and Training) to ensure that their own schedule is meshed with the other requirements of the Department's operations.

- Identifies weeks in which there are major commitments to training, fire prevention, public education, inspections, pre-fire planning, etc. and allows shift officers and company officers to plan accordingly as well.
- Involves top command staff in setting priorities and makes those priorities clear to all personnel through the distribution of the annual planning schedule. This becomes a primary tool by which the Chief and others in the command staff can make clear to staff where the focus will be in the following year.
- Provides a check against which activities can be compared to assure that the Department is meeting its goals and objectives.

The project team has worked with departments that have successfully implemented this process. These departments typically set aside more than 80% of the year, leaving some flexibility to catch up or to do unanticipated activities. Activities that are typically covered in the plan include:

- Company training.
- EMS training.
- Pre-fire planning / engine company inspections.
- Hose testing / pump testing.
- Hydrant maintenance / testing (in agencies where this is a Fire Department responsibility).
- Public education / fire prevention activities (such as National Fire Prevention Week).
- Special hazards / special teams training days.

The project team recommends that the Fire Department adopt this approach to planning. This process can be run on either a fiscal or a calendar year. Each function in the Department should be asked to bring forward their plan for the year – this would allow the Chief and other members of the command staff to develop an annual plan. To be effective, the Chief must commit to managing using this plan – to limit the number of

events that are moved around on the plan, etc. This plan should be developed into an annual calendar that is then distributed to all personnel.

6. THERE IS NO CLEARLY AND CONSISTENTLY ARTICULATED COMMON VISION, MISSION, GOALS OR OBJECTIVES FOR THE FIRE DEPARTMENT.

A review of policy documents reveals that the Department does have a published Mission Statement. However, interviews with members of the Department reveal the following:

- The Mission Statement is not well understood, or even known, to many members of the organization. It is viewed as a “cookie cutter” Fire Department mission statement with little relevance to the Watertown Fire Department and the unique circumstances faced by the Department.
- There is an inability to communicate a common vision of organization.
- There are no established goals or objectives on either a quarterly or annual basis.
- There is a very limited understanding of the budget or the budgeting process beyond the Chief and Deputy Chief level of the organization.
- Financial controls appear to be limited to capping spending on the amount of any given line item in the budget. The management staff was unable to articulate procurement policy or limits of authority in expenditures.
- Other than entry level employees there are no formal or informal performance feedback or evaluation mechanisms.

These issues have resulted in a lack of organizational focus and confusion regarding organizational priorities. The lack of common goals also results in a certain lack of consistency in decision making and resource allocation.

Recommendation: The Chief and Deputy Chiefs should review the Department’s mission statement. This should be done in conjunction with a broadly comprised working group. The primary focus should be on developing a mission statement that is relevant to the special issues facing the WFD.

7. THE TRAINING FUNCTION IN THE FIRE DEPARTMENT MUST BE ENHANCED AND SHOULD FOCUS MORE ON PROVIDING SUPPORT TO THE COMPANY OFFICERS.

The Watertown Fire Department provides training to both new employees and continuing education to current employees. The focus of this training is on fire fighting and emergency medical services. The majority of training provided in the Fire Department is organized by the company officers in each of the three fire stations. The Fire Department also has a Training Officer who is also the EMS Coordinator. This is a 40-hour shift assignment (Monday – Friday) and the incumbents in the position may be there for months or years depending on the rate of turnover at the top ranks of the Fire Department.

A review of the training program shows that there are several major issues regarding the way in which training is provided by the Fire Department:

- The unpredictability and turnover in the Training Officer position is viewed as a major concern by line staff and managers.
- There are no performance measures or standards for performance for training or for basic skills.
- There are no “minimum standards” set for new employees to meet and to be continually maintained by current employees.
- The company officers do not receive coordinated support for in-station training.
- There are few opportunities for multiple companies to train together in either scenario based exercises or on technical issues.
- There is little or no formal training provided for supervisors, managers or executive staff.
- There are no post-incident critiques performed.

The current program is dependent on the creativity, motivation and preparation of the company officers who work on the daily training. The project team recommends

that the Fire Department take a number of steps to address these issues. These steps should include the following:

- The Fire Department should adopt a series of minimum standards for new and incumbent employees. These minimum standards should be made part of the process by which new employees either pass or fail their probationary period. These standards should continue to serve as the nucleus for in-station and multi-company training. Recommended standards include the following:
 - Area familiarization.
 - Vehicle familiarization.
 - Use of SCBA system.
 - Incident command and safety.
 - Use of ropes.
 - Use of ladders.
 - Use of hoses and streams.
 - Medical equipment.
 - Use of other tools and equipment.
 - Ventilation.
 - Emergency vehicle driver training.

These standards require the company officer assigned to the new employee to mentor the person to ensure their understanding of the minimum requirements. In addition, each minimum standard has a test that is administered to ensure their knowledge. This provides a formal methodology for assessing employee performance and enables the Fire Department and the Town to make more informed decisions.

- Develop a calendar-based system to support the company officers in their delivery of the training program. This would consist of the development of a series of key topics with supporting materials, pictures, reference guides, tests, suggested activities that would be provided to each fire station or on the internet for the Department. The key elements of the program are described, below:
 - The program would work by assigning a topic to a number (1-30).

- A notebook (hardcopy or virtual) would be provided to each station.
- Each topic would be covered when the date corresponds to its topic number.
- This would ensure consistency (each topic would be taught from the same set of materials – the “Watertown way”).
- The list of topics can be as narrow or broad as the Department desires. It can remain the same or can be changed quarterly or annually. Example topics include the following:

••	Ventilation	••	Overhaul	••	SCBA
••	Construction	••	Salvage	••	Entry
••	Hoses	••	Ground Ladders	••	Pumping
••	Fire Streams	••	Incident Command	••	Safety
••	Communications	••	Sprinklers	••	Streets
••	EMS	••	Hydrants	••	Policies
- The training program should be developed in accordance with NFPA 1410 – “Standard for Training for Initial Emergency Scene Operations.” This is a standard which focuses less on topical skills training (as above) but also provides for scenario based minimum standards for a fire agency. This approach can easily be adopted to encompass both training as well as performance assessment for the line crews. A number of specific minimum skills are defined in the document. One example of the types of minimum standards set forth in NFPA 1410 follows:
 - Forward-lay a hose 300 feet from a hydrant using a single supply line.
 - Advance a pair of attack lines 150 feet each from the engine.
 - Charge the lines so that the primary attack line can pump and maintain 100 gpm. The secondary (backup) line should be able to pump and maintain a flow of 200 gpm.
 - This task should be completed by a 4-person engine company in less than three (3) minutes.

- Crews should be tested annually (or more often) on their ability to meet these minimum qualifications. Those units that cannot meet these standards should be immediately scheduled for training supervised by the Training Officer.
- The Training Chief should also utilize the recommended standards from NFPA 1410 to develop and oversee multi-company training. This training should be done on at least a quarterly basis for all units. The Deputy Chief on-duty should be involved in the exercises and full incident command practices should be utilized in all exercises involving any fire or rescue and all events with three or more units on-scene.
- All personnel from the rank of Lieutenant and above should be provided with specific training to enable them to better oversee operations. The project team recommends that the Fire Department adopt an approach recommended NFPA 1021 “Standard for Fire Officer Professional Qualifications.” This standard sets forth requirements to achieve various classifications of Fire Officer 1 through Fire Officer 4. These are summarized, in the exhibit which follows:

Fire Officer I	Fire Officer II
<ul style="list-style-type: none">• Firefighter II• Minimum standard for department.• Familiar with budget process.• Departmental operating procedures.• Fire prevention and education.• Cultural diversity.• Methods of supervision.• Group dynamics.• Rights of management and bargaining unit.• Contractual language.• Ethics.• Fire related ordinances.• Basic writing and organizational skills.	<ul style="list-style-type: none">• All from FO1• Ability to evaluate member performance.• Human resource policies of the city.• Communicate orally and in writing.• Preparing a project or divisional budget.• Purchasing laws and regulations.• Working with the press.• Incident command, health and safety.
Fire Officer III	Fire Officer IV
<ul style="list-style-type: none">• All from FO 1 and FO 2.• Ability to research and analyze data.• Working with the public outside the agency.• Develop and oversee large budgets.• Ability to evaluate construction for issues.	<ul style="list-style-type: none">• All from FO 1, FO 2 and FO 3.• Advanced training in personnel, administration, legal and other issues.• Advanced training in analysis and information management.• Training in long range planning and evaluation.• Major incident oversight.• Major incident planning.

This exhibit does not exhaustively cover the text of the 25-page standard. However, it does show the sense of progression that is encouraged by this program. The Fire Department could either adopt the standard formally (by linking, for example, promotions to these various levels) or could design a program for new and existing officers. Many of the elements of these programs

can be provided by MIIA, the Town's Human Resources, Finance, Information Technology, Purchasing and other support departments. The Town should budget an additional \$50,000 in training funds to provide for outside training to management personnel.

The training program of the Fire Department should be enhanced to improve the consistency of training and to enhance the support of company officers. In addition, particular focus should be given to enhancing the training given to new employees and to management personnel. Specific steps that should be taken to enhance the delivery of management training include the following:

- Provide "grade appropriate" training to personnel in the Fire Department. Identify the training needs that are relevant to officers and provide this to them. Do not require officers who do not actively participate in line activities to spend time on line training.
- Access the programs made available at the Fire Academy and in the Town that focus on training mid-managers and senior managers to be more effective trainers. These classes focus on methods of instruction and identify the various ways in which people learn and retain information.
- Consider joint training exercises for managers in the Fire, Police and other Town departments. The focus should be on sharing training opportunities that have broad applicability. Town departments should focus on crosscutting training issues such as personnel, budget management, capital planning, etc. and provide these to personnel in all public safety agencies in the Town.

Recommendation: The Fire Department needs to make several major changes in its training program. These include improving the continuity in the position of Training Officer, development of a standards-based training program, annual testing against these minimum standards, development of new hire training, and provision of management training. The Town should budget an additional \$50,000 to cover the cost of the management and supervisory training - much of which can be provided in-house for no additional cost.

8. DOCUMENTATION OF TRAINING HOURS IS A CRITICAL RISK MANAGEMENT FUNCTION THAT SHOULD BE ENHANCED IN THE DEPARTMENT.

The Matrix Consulting Group next examined the level of training and the records support of the training function. The Fire Department is using a 'home-grown' product

for its in-house records keeping. This software supports a wide range of fire department functions including training but is difficult to use and is ill-documented. To address these possibilities the project team reviewed current practices with a particular focus on the way in which data are tracked and recorded. This review does show that there may be a gap in recording of information into the Department's software. The project team makes the following recommendations:

- Adopt as a formal standard, two hours per day at least 80% of all day shifts in each station for each company assigned.
- Link these in-station training requirements to the previously described training program.
- The Training Officer should tour each of the stations at least once per week to observe training in that station (randomly by appointment). These visits should be focused on reviewing the use of the materials provided to ensure consistency of training in the stations on key topics.
- The Deputy Chief of each work group should also tour each station at least once per week during the training block to observe and critique training. One of the primary roles of a successful company officer is to instill the proper techniques and approaches into the personnel assigned to his or her command. The Deputy Chief's cannot assess the capabilities of their company officers in this critical task without directly observing them.
- All training should be recorded by the Department. Training records are a key component of a successful risk management program.

These changes would result in enhancements to the current training approach and would make the entire Fire Department more accountable to the Town and Department for the training time.

Recommendation: Adopt a formal training target of at least two (2) hours per day. The minimum threshold should be set at 80% compliance with this target. The records for all training completed should be entered daily into the Department's software. The Training Officer and shift Deputy Chief should each be touring the fire stations to observe training and to critique it when necessary.

9. THE WATERTOWN FIRE DEPARTMENT DOES NOT CONDUCT AFTER-ACTION OR POST-INCIDENT CRITIQUES. THIS RESULTS IN A LOST OPPORTUNITY FOR LEARNING AND SHARING INFORMATION.

After-action reports (i.e., post incident critiques) should be conducted following all structure fires, vehicle extrications, multiple-casualty EMS runs and randomly selected “routine” calls. The project team found that the Watertown Fire Department does not conduct formal after-action debriefings follow major incidents such as structure fires or other significant responses. The use of such after-action reporting can lead to significant educational opportunities for staff at every level of the organization. Currently, no such effort is in place within the Fire Department, resulting in lost opportunities to learn from both successes and failures in the day-to-day operations of the Department. Furthermore, there is a lost opportunity to enhance the delivery of training in the Department, as such after-action assessments can prove to be a valuable element in a training needs assessment process.

These should be prepared with input from all personnel involved in the event and should be co-authored by the officer in charge and by one line firefighter assigned to the incident. This process is addressed in NFPA 1500. Focus should be given on the following types of issues:

- Incident Command - was it utilized effectively?
- Accountability - was it utilized, and were there issues?
- Scene Safety - issues that need to be addressed?
- Strategy Utilized - were there big-picture issues that need to be addressed or learned from?
- Tactical - were there issues or lessons to be learned from specific operational tactics?

These should be developed by the officer in charge and should be distributed to all personnel in the Fire Department.

Recommendation: The Fire Department must work to immediately address the issues described in this section. Current approaches to these issues are not representative of best practices in the management of a fire / rescue agency. The Chief and Deputy Chiefs should be tasked with undertaking these recommendations initially, with future support provided by the Training Officer and other officers in the Department.

10. THERE IS NO FORMALIZED METHOD OF IDENTIFYING AND TRAINING MANAGERS AND LEADERS WITHIN THE FIRE DEPARTMENT.

The current systems of training and employee development do not include any formalized process for identifying or developing management potential. This results in several organizational challenges:

- Once promoted, individuals are unclear as to the expectations of supervisors and managers within the organization.
- There are few incentives to promote to leadership ranks within the Department.
- There is little opportunity to model or observe effective management behaviors.
- By definition, promotional processes do not assess effective management skills, traits or abilities because they have not been defined by the organization.

As a result of these issues, there is a wide range of management abilities exhibited by personnel at supervisory levels of the organization. This also results in varying expectations of supervisory performance by senior management staff who come to expect varying levels of performance from various supervisors throughout the organization. Focus on these issues will be increasingly important in coming years given the anticipated turnover in staff within the Department.

One option to consider would be to utilize the joint IAFF / IAFC³ Labor-Management Initiative. This program is designed to both enhance the management skills of Chief officers, but also to enhance their ability to work with bargaining unit leadership. These programs are, in fact, designed for the participation of both the Chiefs and the union leadership at the same time. Other programs are available, for free, from the Massachusetts State Fire Academy, including a program entitled: Chief Fire Officer Management Training Program. Three of the Chief Officers in the Fire Department have attended this program. The Fire Department will allow Chief Officers to attend and have historically paid to cover the cost of any missed shifts.

Recommendation: Develop a training program for company officers that results in all of them being trained to the level of “Fire Officer I” per NFPA standards. Deputy Chiefs should be trained to the level of “Fire Officer 2” per the NFPA guidelines. Provide ongoing management training, including risk management, personnel management, employee assessment, training skills development, etc.

11. THE MANAGEMENT ENVIRONMENT SUFFERS FROM A HISTORY OF MINIMAL SUPPORT AND CONSISTENCY.

The current Chief is alone as a non-union members. As a result, a management style has emerged that in some instances focuses on a higher level of detail than would be appropriate if the command staff areas of responsibility were clearly defined and staffed appropriately.

Management staff should receive comprehensive training to learn how to function as *managers*. This should happen when personnel are promoted from Firefighter to Lieutenant to Captain and again when they are promoted from Captain to Deputy Chief. Much of the training can be provided internally, but additional training can be provided by the Massachusetts Fire Academy – one such program is referenced in the preceding

³ IAFF = International Association of Fire Fighters / IAFC = International Association of Fire Chiefs.

sub-section of this report. As personnel are promoted their scope of responsibility expands beyond service delivery to the community to include supervision and management of the Fire Department and its personnel. Training should focus on the following issues:

- Basic supervisory skills.
- FMLA / FLSA issues
- Working with employees facing personal challenges at home.
- Basic human resources issues.
- Payroll and basic financial systems issues.

Deputy Chiefs are a key element in the command staff of the Fire Department. Some overtime funds *must* be dedicated to ensuring that they can attend management team meetings on a regular basis.

Recommendation: The Department needs to focus on organizational development and team building to focus attention on and improve, systems of accountability.

12. EMPLOYEE EVALUATIONS SHOULD BE INSTITUTED IN THE FIRE DEPARTMENT.

Evaluations of employee performance are limited to probationary periods of employment. This is generally recognized as a function of the civil service rules under which the Town operates.

The Department has adopted standardized company performance standards which are utilized to evaluate the ability to carry out specific fire ground tasks and related operations. However, there is no on-going mechanism for formalized employee feedback. The Fire Department, in consultation with Personnel Director and Town Attorney, should develop a basic employee appraisal system. These reviews should be

completed by the direct supervisor of each employee. The review should provide basic feedback for each employee so they understand how they are meeting or failing to meet Fire Department and Town expectations.

Recommendation: Develop an employee appraisal approach that either focuses on the performance of the individual or on the performance of the company unit. This should be focused on improving training and preparedness of personnel.

13. THERE IS NO FORMALIZED MANAGEMENT DEVELOPMENT PLAN WITHIN THE FIRE DEPARTMENT.

The Department has not developed clearly defined needs or expectations for leadership or management skills. Again, this is attributed to the civil service rules that bind the promotional processes. However, the lack of clearly defined expectations of supervisors and managers leads to on-going confusion and organizational dysfunction.

The Department has not developed either experiential or didactic methods of developing leaders internally. There is a limited ability for employees to attend the National Fire Academy or other professional training venues. However, the Department does not offer supervisory or management development training as an integral part of its personnel development system.

Recommendation: Focus on providing company officers and command staff members with ongoing management and supervisory training. In addition to the Fire Officer training recommended previously, the Department should also provide company officers with training on educational methods, risk management and personnel management.

14. POLICIES AND PROCEDURES MUST BE UPDATED AND MADE TO COMPREHENSIVELY COVER OPERATIONS, SUPPORT AND OTHER FUNCTIONS.

The Fire Department, as does any emergency operations department, operates under the direction provided by its policies and procedures. These documents can be issued by the Fire Chief under the authority granted to him by the MGL Chapter 48 /

Section 42. These documents, in conjunction with the contract between the Town of Watertown and its bargaining unit, represent the two locally derived documents that provide structure to the administration and operation of the Fire Department.

The current policies and procedures are limited in their scope and do not cover the comprehensive requirements of a modern fire / rescue department. The types of things included in the current document include the following:

- General Rules
- Fire Alarm
- Uniforms
- Training
- Radio Procedures
- Attack Procedures
- House Keeping
- Accountability and Discipline

There are not consistent dates on the specific policies contained in the document as to when they were reviewed and / or updated. The clear tracking of review and revision is instrumental to ensuring that all staff are able to identify the most up to date version of each policy or procedure. In addition, the project team found that the document has been updated solely by the Chief with little direct input from the Deputy Chiefs or other staff in the Department. The project team also found the following:

- The current policies and procedure do not cover a number of topics which are critical for the fire / rescue service delivery environment.
- The current policies and procedures are focused on a mixture of administrative and operational items with significant gaps in the document regarding topics such as emergency medical response, infection control, risk management, etc. A

detailed list, developed by the US Fire Administration, is provided later in this section of the report.

- The current policies include a number of intensely detailed passages followed by very general guidelines.

Policy creation is a rigorous and demanding process, especially if it is based entirely on local development efforts. Fortunately, a number of fire departments nationwide have developed policies that could form the basis for the comprehensive development of policies for the WFD. In addition, the Center for Public Safety Excellence or CPSE (formerly the Commission on Fire Accreditation International – or CFAI) has developed materials that could also support the Department’s policy initiative. We are not suggesting that documents from other sources be copied into a WFD format but that existing materials be used to help the Department structure its efforts. The Matrix Consulting Group project team recommends that the Department adopt the following process for completing this, as recommended by the US Fire Administration:

- Conduct a complete needs assessment of the policies and procedures of the Fire Department. Given the current state policies and procedures, it would likely be more practical to obtain an up-to-date policy from a neighboring community (or a model policy from the Commonwealth, if it is available). This needs assessment should take the following form:
 - Form a committee made up of at least one Deputy Chief, one or two Company Officers and one or two Firefighters to develop a needs assessment. Coordinated committees might be established on each shift. The Deputy Chief should serve as the facilitator of the committee.
 - The committees should focus on implementing sound policies and procedures, with the inclusion of NFPA 1500⁴ safety standards wherever possible.
 - Identify any unique or unusual characteristics of the community. What are the major sources of risk? Are there unique demands for service placed on the Department? Who does it interact with frequently (police, water,

⁴ NFPA 1500 is a standard providing for safety of firefighters – it touches on a wide range of topics including personal protective gear, firefighter safety programs, etc.

- other fire departments)? Are there response impediments that need to be considered? Are there seasonal issues that need to be considered?
- Consider the current policies as well as any potential models from which the policies could be developed.
 - Do the policies that exist address the needs of the community and the Department? Are there major gaps in them or are they too specific?
 - Develop a list of policies and procedures that should be in place. Do the model policies address the issues relevant to the WFD? Are there major gaps in the policies?
 - Do post-incident reviews suggest major gaps that need to be addressed? Have there been changes in the law? Have any issues been identified during training? Has equipment been changed? Are there new apparatus that need to be considered?
 - Are there guidelines from professional and trade organizations that suggest policy or procedure approaches?
- Once the needs assessment has been done, the Fire Department can turn to the process of developing new policies or modifying existing ones. This process can be accomplished as follows:
 - Establish one or more teams for each section of the policy manual to handle specific editing and writing tasks.
 - Develop specific procedures for writing, sharing and editing proposed policies.
 - Develop a specific format for all policies and procedures.
 - Gather information and potential alternatives for each policy. Do not reinvent policies that already exist elsewhere.
 - Analyze the various alternatives and select the one which most closely matches the WFD approach to conducting fire and EMS operations.
 - Write the draft of the policy.
 - Review and test (if applicable) the proposed policy or procedure.
 - Ratify and approve the final version. Seek legal sign-off from the Town's attorney if this is recommended internally.

- The next step is to implement the policies and procedures. This is also a complicated process and involves the following:
 - Assessment of what is being implemented. Is this a total replacement or an annual update?
 - Provide notice to, and discuss policy changes with, personnel.
 - Assess training needs and develop training materials to ensure that all personnel are properly briefed and prepared to consistently implement the policies.
 - Track who has received new policies and who has been trained. Many agencies require employees to sign an acknowledgement receipt.
- The Department should have a process by which performance can be monitored to ensure that:
 - All policies are being followed.
 - All policies match the actual practices and that they meet the needs of the agency and community.
 - All policies are reviewed annually to ensure that they continue to be relevant. A process similar to the one described above should be used to review policies.

The preceding dot points describe a process by which policies can be developed, reviewed and implemented. The following points provide a list of standard operating guidelines the WFD should consider developing.

- Management and Administration
 - General Administration
 - Organizations
 - Facilities
 - Emergency Vehicles and Special Apparatus
 - Equipment and Supplies
 - Finance
 - Training, Education and Exercises
 - Information Management
 - Member Health and Assistance Programs

- Medical Screening / Health Assessment
 - Health and Wellness Promotion
 - Performance Evaluation Process
 - Post-Injury Rehabilitation
 - Employee Assistance
 - Facility Safety
 - Hazard Communication
- Organizational Planning and Preparedness
 - Strategic / Master Plan
 - SOP Development
 - Risk Management
 - Emergency Operations Planning
 - Mutual / Automatic Aid
- Prevention and Special Programs
 - Public Information and Education
 - Working with the Public
 - Working with the Media
 - Emergency Public Information
 - Public Education
 - Public Relations
 - Building Inspections and Code Enforcement
 - Authorities and Codes
 - Design and Plans Review
 - Residential Inspections
 - Commercial Inspections
 - Industrial Inspections
 - Code Enforcement
 - Record Keeping
 - Special Programs
 - Fire Cause and Arson Investigation
 - Hydrant Maintenance
 - Other Special Programs
- General Emergency Operations
 - Operating Emergency Vehicles

- Driving Emergency Vehicles
- Riding Emergency Vehicles
- Operating Special Apparatus
- Vehicle Accident Reporting and Investigation
- Use of Personal Vehicles
- Safety at Emergency Incidents
 - Applicable Standards
 - Risk Management Guidelines
 - Safety Officer
 - Protective Clothing and Equipment
 - Personnel Accountability System
 - Responder Exposure Control
 - Hearing Conservation
 - Operating in a Hostile Environment
 - Operating on Roadways
 - Incident Scene Rehabilitation
 - Medical Support
 - Incident Termination
- Communications
 - System Access
 - Definition of Alarms / Dispatch Protocols
 - General Procedures
 - Emergency Signals
 - Alternate Radio Frequencies
 - Mobile Data Terminals
 - Departmental Cell Phones and Pagers
 - Mutual Aid Companies
 - Situation / Status Reports
 - Use of Personal Cell Phones and Pagers
- Command and Control
 - Incident Command / Incident Management System
 - Mutual / Automatic Aid
 - Incident Scene Management
 - Staging
 - Transferring Command
 - Public Information
 - Record Keeping
- Special Operations

- Aircraft Operations
 - Boat and Watercraft Operations
 - Special Unit Operations
 - Bomb / Hazardous Device Threats or Confirmed Incidents
 - Terrorism Incidents
 - Civil Disturbances
- Post-Incident Operations
 - Post-Incident Analysis
 - Post-Incident Recovery
 - Incident Record Keeping and Reporting
 - Injury / Exposure Reporting and Investigations
 - Critical Incident Stress Debriefing / Defusing
- Fire Suppression
 - Fire Suppression Risk Management
 - Required Use of Personal Protective Equipment
 - Rapid Intervention Team
 - Evacuation (Firefighters)
 - Air Monitoring
 - Company Operations
 - Incident Staffing
 - Water Supply
 - Tanker / Tender Operations
 - First-In Engine Operations
 - Second-In Engine Operations
 - Truck Company Operations
 - Rescue / Squad Company Operations
 - Special Units
 - Tactical / Strategic Guidelines
 - Incident Size-Up
 - Automatic Alarms
 - Offensive and Defensive Operations
 - Apparatus Placement
 - Forcible Entry / Gaining Access
 - Foam Operations
 - Ventilations
 - Hot / Cold Weather Conditions

- Sprinkler / Standpipe Operations
 - Apartment / Condominium Operations
 - Commercial Building Operations
 - Salvage
 - Overhaul
 - Exposures
- Special Facilities / Target Hazards
 - High-Rise Operations
 - Clandestine Drug Labs
 - Correction Facility Operations
 - Industrial Facilities
 - Other Special Structures
- Special Fire Suppression Operations
 - Aircraft Firefighting Operations
 - Special Unit Operations
 - Wildfire Operations
- Emergency Medical Response
 - Emergency Medical Response Risk Management
 - Incident Infection Control
 - Protective Clothing and Equipment
 - Lifting / Moving Patients
 - Hostile Situations
 - Pre-Hospital EMS First Response
 - Delivery Model
 - Patient Care
 - Treatment Protocols
 - Medical Devices and Equipment
 - Biohazard and General Waste Disposal
 - Clothing / Equipment Decontamination
 - Patient Disposition and Transportation
 - Destination Guidelines
 - Method / Mode of Transport
 - Ambulance Operations
 - Helicopter Operations

- Management of EMS Operations
 - Re-Supply / Procurement of Supplies
 - System Inventory
 - Designation of Treatment Facilities
 - Data Collection and Reporting
 - Quality Improvement System
 - Research and Reporting
 - Standard of Care
 - Patient Care Reporting
 - Patient Documentation and Billing
- Special EMS Operations
 - Mass Gatherings
 - Hazardous Materials Team Medical Monitoring
 - EMS Operations at Hazmat Incidents
 - EMS Operations at Technical Rescue Incidents
 - EMS Operations During Disasters
 - EMS Operations in the Rehabilitation Area / Sector
- Hazardous Materials Response
 - Hazardous Materials Response Risk Management
 - Personal Protective Equipment
 - Hazardous Materials Personal Safety
 - Air Monitoring
 - First Responder Operations
 - Roles and Actions
 - General Response Procedures / Emergency Response Plan
 - Recognition and Identification
 - Notification
 - Site Management and Scene Setup
 - Emergency Decontamination
 - Defensive Actions
 - Special Hazmat Operations
 - Operating with Hazmat Teams
 - Public Protection Options
 - Environmental Restoration
- Technical Rescue

- Technical Rescue Risk Management
 - Personal Protective Equipment
 - Lock Out / Tag Out
 - Air Monitoring
- Rescue Operations
 - Scene Stabilization
 - Rescue Equipment
 - General Rescue Operations
 - Rescue Teams
- Special Rescue Operations
 - Ice Rescue
 - Water Rescue
 - Confined Space Rescue
 - Structural Collapse Rescue
 - Rope Rescue
 - Trench and Excavation Collapse
 - Aircraft Extrication
- Disaster Operations
 - Organizing for Disaster Situations
 - Disaster Management
 - EOC Organization
 - ICS / EOC Interface (NIMS)
 - Activation Levels
 - Personnel Assignments and Responsibilities
 - Personnel Notification Procedures / Call-In Procedures
 - Disaster Training
 - Disaster Preparation
 - Disaster Operations Risk Management
 - Personal Protective Equipment
 - Disaster Operations Personal Safety
 - Protection of Facilities and Equipment
 - Accountability of Personnel
 - Suspending Operations
 - Member Injuries and Fatalities

- Disaster Operations
 - Disaster Operations Center
 - Adjusted Levels of Response
 - Disaster Communications
 - Response Unit Routing and Placement
 - Damage Assessment
 - Specialized Equipment
 - Building Safety Evaluations
 - Community Emergency Response Teams
 - Mitigation Activities
 - Curtailing Disaster Operations

Successful and safe operations, as well as broader risk management strategies, are grounded in an agency's policies and procedures. The current policies and procedures do not provide a comprehensive basis from which the WFD can be effectively and efficiently operated.

Recommendation: The Fire Department should develop a new, comprehensive, policy and procedures manual. The Department should first take steps to identify examples from Massachusetts to simplify their development. Second, a committee of staff from all ranks should be formed to ensure that the adaptation of policies and procedures to the Fire Department is done with appropriate focus on the needs of the community and the WFD.

15. THE USE OF DATA IN THE FIRE DEPARTMENT IS CLEARLY LACKING IN MANAGEMENT FOCUS AND UTILIZATION.

The decision making process within the Fire Department appears to be incremental and event driven. There is little formal tracking of organizational performance, trend development, or organizational benchmarking or comparison. Evaluation of Department performance should be dependent on agreed upon and adopted standards of performance - yet these are not present in the current environment. This should include a wide range of issues including: financial performance, operational performance, the integration of GIS information into operations and planning and so on.

Recommendation: The Department must adopt extensive use of data collected from all sources in order to enhance management control and service delivery.

16. THERE IS LITTLE EVIDENCE OF ADOPTED PERFORMANCE MEASURES THAT ARE EVALUATED ON A CONSISTENT BASIS UTILIZING DATA.

Despite the technological infrastructure to support data needs, the existence of reliable and consistent data was a constant challenge in the development of this study.

The primary reasons for these challenges are as follows:

- There is little or no accountability for company officers to enter appropriate data outside of incident reporting responsibilities.
- There is little or no review of daily station reporting.
- In the absence of specific goals and objectives, there is no ability to provide a meaningful management context to any data supplied.
- The absence of adopted and recognized performance standards.

The decision making process within the Department appears to be based upon budgetary determinations and, outside of the budget process, driven almost entirely by events. The project team was unable to identify any formalized, organization wide planning process. This observation is confirmed by the organization's lack of defined goals and/or objectives.

The project team has identified several opportunities for improvement in the management systems of the Watertown Fire Department. These include:

- A lack of a meaningful management framework for the Department, including the development and establishment of an organizational mission, vision, goals and objectives.
- The lack of adopted community standards of performance for the Department.
- A clear absence of defined expectations for positions of management and supervision within the Department.

- A lack of a formalized system to identify and develop management and supervisory skills within the Department.
- The accountability and responsibility issues created by the peer-to-peer management model resulting from the ad hoc appointment of the Deputy Chiefs.

Recommendation: The Town and the Department should work collaboratively at developing and adopting community-wide standards of performance, including response times and acceptable levels of risk.

Recommendation: The Department should implement a formal Management Information System that identifies and adopts critical performance indicators and tracks these on a daily basis.

17. THE FIRE DEPARTMENT SHOULD CONDUCT THOROUGH BACKGROUND CHECKS ON ALL NEW HIRES. CRIMINAL RECORDS CHECKS AND DRIVING RECORDS CHECKS SHOULD BE PERFORMED ANNUALLY. RANDOM DRUG TESTING SHOULD BE MADE A QUARTERLY EFFORT.

The Fire Department currently conducts background checks on new hires. The historical practice has been to conduct a criminal records check on new applicants' based on their Massachusetts criminal history. The following points summarize our findings:

- Historically, criminal records and driving records checks have been made of new employees prior to an offer of employment being made.
- These checks have been limited to the Massachusetts records.
- No follow-up criminal or driving records checks are made of existing staff. This represents a potential liability and risk management gap in the Town's current approaches.
- Furthermore, no random drug or alcohol testing is conducted of Fire Department employees.

The project team recommends the following steps to be taken by the Town and the Fire Department:

- Institute a program by which new applicants are checked in both Massachusetts and national criminal history data bases.

- Check the driving history of all new applicants in, at minimum, Massachusetts and other New England states. This has been instituted town wide on all employees who drive a vehicle as part of their employment.
- Institute a program under which all Fire Department employees are subject to a criminal history in the national database and driving history in Massachusetts on an annual basis (either all on the same date, or on the anniversary date of their hire). The Town is currently checking the driver's record on all employees who drive a vehicle as part of their employment.
- Develop a program of quarterly random drug and alcohol tests – for all Fire Department personnel. A third party medical provider should be used to collect and test all samples.

The intention of all of these programs is to reduce risk and liability for the Town of Watertown. Given the several recent experiences in the Commonwealth Fire Departments, these approaches should both reduce the risks of reoccurrence of recent experiences.

Recommendation: Develop policies and procedures for conducting background checks examining both criminal and driving histories. These should be done before new employees are hired, and should be done on an annual basis for existing employees.

18. ADOPTION OF TARGETED AND DETAILED PERFORMANCE MEASURES MUST HAPPEN FOR THE FIRE DEPARTMENT TO IMPROVE ITS SERVICE DELIVERY AND MANAGEMENT OVERSIGHT.

Few performance measures are focused on service delivery – and therefore few are useful in terms of measuring performance contemporaneously. Performance measures should be easily understood and easily calculated. Suggested performance measures for the Fire Department should include the following:

- 911 call processing time (call answered to call dispatched): 1 minute or less 90% of the time.
- Emergency call reaction time (call dispatched to unit en-route): 1 minute or less 90% of the time.

- First unit drive time to emergency calls (unit en-route to unit on-scene): 5 minutes or less, 90% of the time (should include calls in the Town of Watertown only).
- Quality assurance score of 85% or better on 90% of emergency medical calls for service.

Other communities will also identify on-scene performance indicators, or measures which must be met in training. These may include:

- On-scene to charged line at the front door of a structure fire: three minutes or less 90% of the time.
- Water from hydrant to supply engine: two minutes or less 90% of the time.

The point of the performance measures is to identify the community's expectations in a quantifiable way, and to use the measurement of the Department's performance against these objectives to identify areas which may need improvement or additional resources.

Recommendation: The Fire Department, in conjunction with the Town's administration and policy makers, should work to develop specific performance indicators for the WFD. The Department's financial management systems are adequate for ensuring that budgetary and overtime issues can be identified quickly. Once these are in place, management systems focused on tracking these indicators should be developed by the Department.

19. AS WITH THE PROJECT TEAM'S RECOMMENDATION FOR POLICE, FUTURE FIRE CHIEF RECRUITMENTS SHOULD BE EXPANDED TO INCLUDE OTHER COMMONWEALTH CANDIDATES IN ADDITION TO INTERNAL ONES.

The Town of Watertown Fire Chief is a Civil Service position. In Watertown historically this has meant that the position has been selected from a list of local candidates who have passed a Civil Service exam. The Town Manager, as the appointing authority, must take one of the top three performers on the exam to fill the vacant position. This approach has several key implications that can negatively impact the Department and the Town:

- The Town Manager is limited to making a selection from those personnel who have taken the exam. These in general include those who work inside the Department.
- This approach limits the pool from which the Town Manager could otherwise recruit and select a Chief officer for the Department.

Civil Service regulations do not exclude external candidates from consideration for appointment. The project team believes that 'testing the market' for top management positions through Commonwealth recruitments would be an effective approach to ensure that the best fit of management skills for the Town was attained.

Recommendation: The Town of Watertown should conduct a Commonwealth search when the next Fire Chief is hired.

20. OPPORTUNITIES SHOULD BE CONSIDERED FOR ADDRESSING FLEET MAINTENANCE IN THE FUTURE. THE TOWN SHOULD ALSO REVISE ITS REPLACEMENT PLAN FOR ALL FIRE / RESCUE VEHICLES.

The Fire Department operates a front-line fleet which includes three engines (one in reserve), two ladders (one often is out of service), two rescues (one is often out of service) and one Deputy Chief car.

(1) The Fire Department Needs to Plan for Replacing its Firefighter-Mechanic.

The Fire Department provides for its own fleet maintenance within the Headquarters station. The following paragraphs summarize the current situation:

- The Department has a single mechanic, who is a firefighter on the line, who performs the full range of necessary repairs and maintenance alone. This presents a major safety concern for the Mechanic and a major risk management issue for the Town and Fire Department.
- The mechanic, who is eligible for retirement, would be difficult to replace internally.
- There is no dedicated maintenance bay for storage area for large parts and tires, presenting a major challenge for the Mechanic and necessitating the movement of parts / tires for maintenance.

- The pace of repairs can also be impacted by solo work – necessitating a number of work arounds, movement of equipment, etc.

The Town should consider the following solutions to these issues:

- Identify one or more heavy vehicle mechanics within the Town who can be trained to assist the current mechanic. These personnel should be brought up to speed in terms of skills and experience, as well as certifications, in order to reduce the potential impact when the incumbent retires.
- Continue with the current practice of sending heavy or specialized repairs to outside shops.
- Begin working with the incumbent to ascertain a likely timeframe for his retirement so that steps can be taken to ensure timely continued repairs of the fire apparatus.
- Consider contracting with the current incumbent for a transition period should his retirement taken effect before other staff are certified.

Recommendation: The Fire Department should work with other Town units to ensure continued in-house (i.e., in-Town) mechanics with the capability and certifications for working on fire apparatus. The current incumbent performs a wide range of key repairs including working on the pumps. These skills may be difficult to replicate among current staff, and so the Department and the Town should begin considering the budget implications of expanding their use of contractors to complete specialized repairs.

(2) The Fire Department Should Develop a Revise Its Vehicle Replacement Plan in Order to Maintain the Fleet in Its Current Condition.

As mentioned in the introduction to this section of the report, the Fire Department has the following fleet of vehicles providing front-line service:

Unit	Model Year
Engine 1	2011
Engine 2	2004
Engine 3	1994
Engine 4 (Reserve)	1994
Ladder 1	2005
Ladder 2	2007
Rescue 1	2008
Rescue 2	2003
Car 2	2010

The project team finds that the Watertown Fire Department is operating a small fleet dedicated to the delivery of critical services. The Fire Department has just been authorized to purchase a new engine (moving the current Engine 3 into reserve) and a new Rescue (which will shift the current Rescue 1 into reserve). Effectively managed fire / rescue departments and communities plan for the regular replacement of their rolling stock to ensure that operating costs stay low, maintenance costs are controlled and that the department is operating with modern, fuel efficient safe and effective equipment. The project team proposes the following replacement schedule:

- The four engines spend 15 years in front line service, and 5 years in reserve – resulting in an engine purchase every 5 years.
- The two ladders spend 10 years in front-line service and 10 years in reserve, resulting in a ladder purchase every 10 years.
- Before ambulances and the Chief car are replaced on a 9-year replacement cycle.

The resulting acquisition schedule (which reflect the recent approval of an engine and rescue replacement) is shown in the table, below:

Year	Capital Item (Description)	Base Capital Cost	Annual Debt Service Impact	Rolling Debt Service Cost
2012	Replace Engine 3 / Rescue 2	\$650,000	\$52,158	\$52,158
2013	<i>No Replacement</i>	\$0	\$0	\$52,158
2014	<i>No Replacement</i>	\$0	\$0	\$52,158
2015	<i>No Replacement</i>	\$0	\$0	\$52,158
2016	Replace Rescue 1	\$150,000	\$12,036	\$64,194
2017	Replace Engine 2	\$500,000	\$40,121	\$104,315
2018	Replace Car 2	\$60,000	\$4,815	\$109,130
2019	<i>No Replacement</i>	\$0	\$0	\$109,130
2020	<i>No Replacement</i>	\$0	\$0	\$109,130
2021	Replace Rescue 2	\$150,000	\$12,036	\$121,166
2022	Replace Engine 1	\$500,000	\$40,121	\$161,288
2023	<i>No Replacement</i>	\$0	\$0	\$161,288
2024	Replace Engine 1	\$500,000	\$40,121	\$201,409
2025	Replace Rescue 1	\$150,000	\$12,036	\$213,445
2026	Replace Ladder 1	\$1,300,000	\$104,315	\$317,761

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Year	Capital Item (Description)	Base Capital Cost	Annual Debt Service Impact	Rolling Debt Service Cost
2027	Replace Engine 3	\$500,000	\$40,121	\$357,882
2028	Replace Car 2	\$60,000	\$4,815	\$362,696
2029	<i>No Replacement</i>	\$0	\$0	\$362,696
2030	Replace Rescue 2	\$150,000	\$12,036	\$374,733
2031	<i>No Replacement</i>	\$0	\$0	\$374,733
2032	Replace Engine 2	\$500,000	\$40,121	\$414,854

The table above assumes that the cost of apparatus remains constant in current dollars, though the actual cost would increase with each purchase. We have also assumed that purchases would be made with the use of a 20-year bond financed at an interest rate of 5%.

3. ANALYSIS OF OPERATIONS

This chapter is focused on the suppression and EMS operations and options facing the Town.

1. THE TOWN OF WATERTOWN HAS NOT YET ADOPTED SERVICE LEVEL STANDARDS

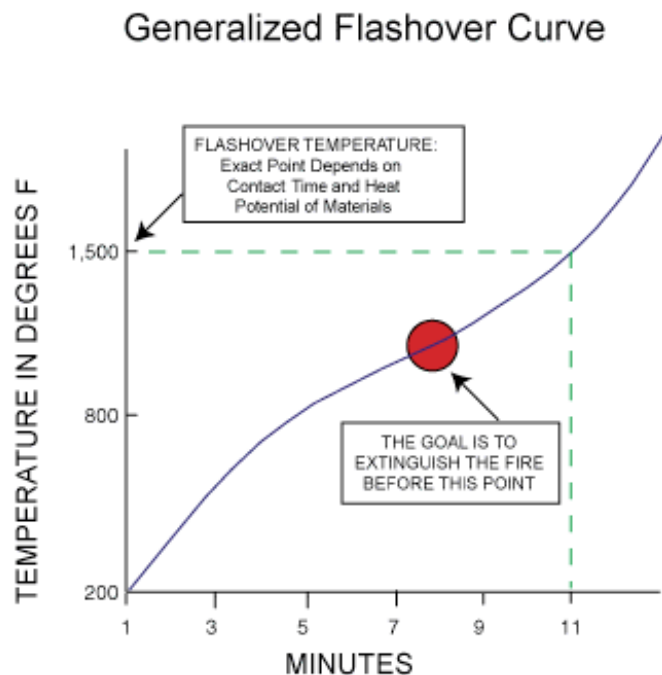
The adoption of performance standards for fire and EMS response is a critical first step in the evaluation of fire, rescue, and EMS service levels and staffing alternatives. While there are national standards that can be used to evaluate fire and EMS service delivery, each community must identify the key risks and necessary level of protection it needs based on its own unique circumstances. Once these performance standards are established a community can assess its performance and determine if current resources support the desired level of service.

(1) Efforts to “Standardize” Service Level Objectives Are Based on Fire Growth Behavior and Research on Cardiac Arrest.

Nationwide, a great deal of effort and research has been put into developing performance objectives for the delivery of fire and EMS services. This effort is critical for agencies making decisions about deployment and location of emergency resources. The objectives promoted for fire/rescue and EMS have their basis in research that has been conducted into two critical issues:

- What is the critical point in a fire’s “life” for gaining control of the blaze while minimizing the impact on the structure of origin and on those structures around it?
- What is the impact of the passage of time on survivability for victims of cardiac arrest?

The chart, that follows, shows a typical “flashover” curve for interior structure fires. The point in time represented by the occurrence of “flashover” is critical because it defines when all of the contents of a room become involved in the fire. This is also the point at which a fire typically shifts from “room and contents” to a “structure” fire – involving a wider area of the building and posing a potential risk to the structures surrounding the original location of the fire.



Note that this chart depicts a fire from the moment of inception – not from the moment that a fire is detected or reported. This demonstrates the criticality of early detection and fast reporting as well as rapid dispatch of responding units. This also shows the critical need for a rapid (and sufficiently staffed) initial response – by quickly initiating the attack on a fire, “flashover” can be averted. The points, below, describe the major changes that occur at a fire when “flashover” occurs:

- It is the end of time for effective search and rescue in a room involved in the fire. It means that likely death of any person trapped in the room – either civilian or firefighter.

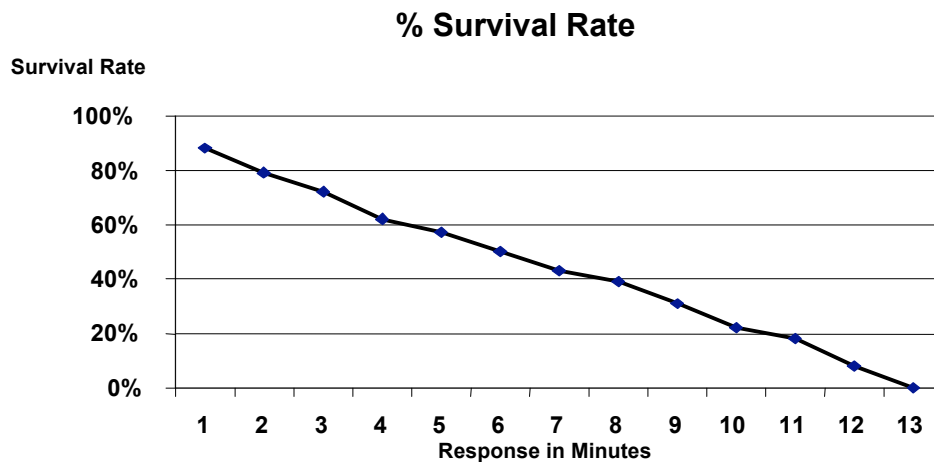
- After this point (flashover) in a fire is reached, portable extinguishers can no longer have a successful impact on controlling the blaze. Only larger hand-lines will have enough water supply to affect a fire after this point.
- The fire has reached the end of the “growth” phase and has entered the fully developed phase. During this phase, every combustible object is subject to the full impact of the fire.
- This also signals the changeover from “contents” to “structure” fire. This is also the beginning of collapse danger for the structure. Structural collapse begins to become a major risk at this point and reaches the highest point during the decay stage of the fire (after the fire has been extinguished).

It should be noted that not every fire will reach flashover – and that not every fire will “wait” for the 8-minute mark to reach flashover. A quickly responding fire crew can do things to prevent or delay the occurrence of flashover. These options include:

- Application of portable extinguisher or other “fast attack” methodology.
- Venting the room to allow hot gases to escape before they can cause the ignition of other materials in the room.
- Not venting a room – under some circumstances this will actually stifle a fire and prevent flashover from occurring.

Each of these techniques requires the rapid response of appropriately trained fire suppression resources that can safely initiate these actions. In the absence of automatic fire suppression systems, access to interior fires can again be limited by a safety requirement related to staffing levels. OSHA and related industry standards require the presence of at least 2-firefighters on the exterior of a building before entry can be made to a structure in which the environment has been contaminated by a fire. In the absence of a threat to life demanding immediate rescue, interior fire suppression operations are limited to the extent a fire service delivery system can staff to assure a minimum of 4-people actively involved in firefighting operations. The second issue to

consider is the delivery of emergency medical services. One of the primary factors in the design of emergency medical systems is the ability to deliver basic CPR and defibrillation to the victims of cardiac arrest. The chart, that follows, demonstrates the survivability of cardiac patients as related to time from onset:



This graph illustrates that the chances of survival of cardiac arrest diminish approximately 10% for each minute that passes before the initiation of CPR and/or defibrillation. These dynamics are the result of extensive studies of the survivability of patients suffering from cardiac arrest. While the demand for services in EMS is wide ranging, the survival rates for full-arrests are often utilized as benchmarks for response time standards as they are more readily evaluated because of the ease in defining patient outcomes (a patient either survives or does not). This research results in the recommended objective of provision of basic life support within 4-minutes of notification and the provision of advanced life support within 8 minutes of notification. The goal is to provide BLS within 6 minutes of the onset of the incident (including detection, dispatch and travel time) and ALS within 10 minutes. This is often used as the foundation for a

two-tier system where fire resources function as first responders with additional (ALS) assistance provided by responding ambulance units and personnel.

Additional recent research is beginning to show the impact and efficacy of rapid deployment of automatic defibrillators to cardiac arrests. This research – conducted in King County (WA), Houston (TX) and as part of the OPALS study in Ontario, Canada – shows that the AED can be the largest single contributor to the successful outcome of a cardiac arrest – particularly when accompanied by early delivery of CPR. It is also important to note that these medical research efforts have been focused on a small fraction of the emergency responses handled by typical EMS systems – non-cardiac events make up the large majority of EMS and total system responses and this research does not attempt to address the need for such rapid (and expensive) intervention on these events.

The results of these research efforts have been utilized by communities and first responders, often on their own with no single reference, to develop local response time and other performance objectives. However, there are now three major sources of information to which responders and local policy makers can refer when determining the most appropriate response objectives for their community:

- The Insurance Services Office (ISO) provides basic information regarding distances between fire stations. However, this “objective” does little to recognize the unique nature of every community’s road network, population, calls for service, call density, etc.
- The National Fire Protection Association (NFPA) promulgated a documented entitled: “NFPA 1710: Objective for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.” This document (NFPA 1710) was published in 2001 and generated a great deal of dialogue and debate – which is still on-going.

- The Center for Public Safety Excellence (formerly the Commission on Fire Accreditation International or CFAI) in its “Objectives of Coverage” manual places the responsibility for identifying “appropriate” response objectives on the locality. These objectives should be developed following a comprehensive exercise in which the risks and hazards in the community are compared to the likelihood of their occurrence.

While each of these efforts provides a reference point for communities to follow, only NFPA 1710 offers any specificity. It is important to note that the performance objectives (in terms of response times) provided in the NFPA 1710 document are derived from the basic research previously described. These include the following (all are taken from section 4.1.2.1.1 of NFPA 1710):

- One minute (60 seconds) for the processing of an incoming emergency phone call, including the completion of the dispatching of fire response units.
- “90 seconds for turnout time.” This is also called reflex time, reaction time, “out-the-chute” time, etc. This is the time that elapses between dispatch and when the units are actively responding.
- “Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and / or 8 minutes (480 seconds) or less for the deployment of a full first-alarm assignment at a fire suppression incident.”
- “Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident.”
- “Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.”
- In section 4.1.2.1.2, NFPA 1710 goes on to state: “The fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time objective specified in 4.1.2.1.1”

It is important to note the “and / or” found in the initial response objective statement. This indicates that a system would meet the intent of the standard if it can reasonably plan to deliver either the single unit, 4-minute travel time standard, the first alarm, 8-minute travel time standard, or both. It should also be noted that it is implied

that the total time allotted is additive with each successive event. For example, a system which arrived on-scene in 6.5-minutes or less 90% of the time (from time of dispatch) would be in compliance – even if the turnout time was longer than 90 seconds (though that should clearly be improved).

It is also critical to note that these time objectives apply to emergency calls for service – there is nothing in NFPA 1710 (nor in any other objective) that suggests that communities cannot establish a differential response to calls for service determined to be non-emergency in nature. A second element of the NFPA 1710 performance objectives addresses unit and total response staffing. These objectives are described in NFPA 1710 as follows:

- Engine and truck companies should be staffed with a minimum of four personnel (sections 5.2.2.1.1 and 5.2.2.2).
- Section A.3.3.8 defines a company as either a single unit or multiple units, which operate together once they arrive on the fire ground.
- A total initial response is defined (in section 5.2.3.2.2) as having a total of 15 people (if an aerial is utilized) for 90% of calls. This is broken down as follows:

One (1) incident commander.

One (1) on the primary supply line and hydrant.

Four (4) to handle the primary and backup attack lines.

Two (2) operating in support of the attack lines, performing forcible entry.

Two (2) assigned to victim search and rescue.

Two (2) assigned to ventilation.

One (1) assigned to operate the aerial device.

Two (2) to establish an initial rapid intervention team.

- If an incident is determined to require additional resources, the fire department should have as an objective the ability to respond with:
- - Additional units as needed (through its own resources or via automatic and mutual aid).
 - Assignment of two (2) additional personnel to the rapid intervention team.
 - Assignment of one (1) as an incident safety officer.

It is interesting to note that the four person companies discussed in some areas of NFPA 1710 are not maintained in the description of primary tasks to be accomplished on the fire ground – recognition that the requirements of the response in the field are dynamic and do not fit neatly into size and shape of any particular response configuration. These objectives apply to the initial and follow-up response for reported structure fires. The document does not suggest that this response be mounted for all incidents. Most agencies in Massachusetts operate with three-person engine and truck companies.

2. THE TOWN OF WATERTOWN SHOULD FORMALLY ADOPT LOCALLY DEFINED SERVICE LEVEL OBJECTIVES.

The Watertown Fire Department includes a number of performance measures in its annual budget, including average response times to emergency calls for service. However, the Town and the Fire Department have not identified or formally adopted service level targets for initial response to emergency medical calls or fire incidents. While the project team believes the standards utilized in the following sections are appropriate for the Town, service level targets should be adopted only after careful consideration of local risks and the financial implications of maintaining those levels.

Recommendation: The Town of Watertown should adopt the time performance objectives described in NFPA 1710 and related documents. This includes processing of emergency calls in less than one minute in dispatch, responding to

the dispatch and having units en-route in less than 90 seconds and delivery of the first unit on-scene in less than four minutes of drive time – all for 90% of emergency calls.

3. ANALYSIS OF THE RESPONSE SYSTEM IN WATERTOWN SHOWS THAT THE DEPARTMENT'S STATIONS ARE LOCATED APPROPRIATELY. A REVIEW OF RESPONSE TIMES SHOWS GAPS IN THE DATA AND A NEED TO FOCUS MORE MANAGEMENT ATTENTION ON THIS ISSUE

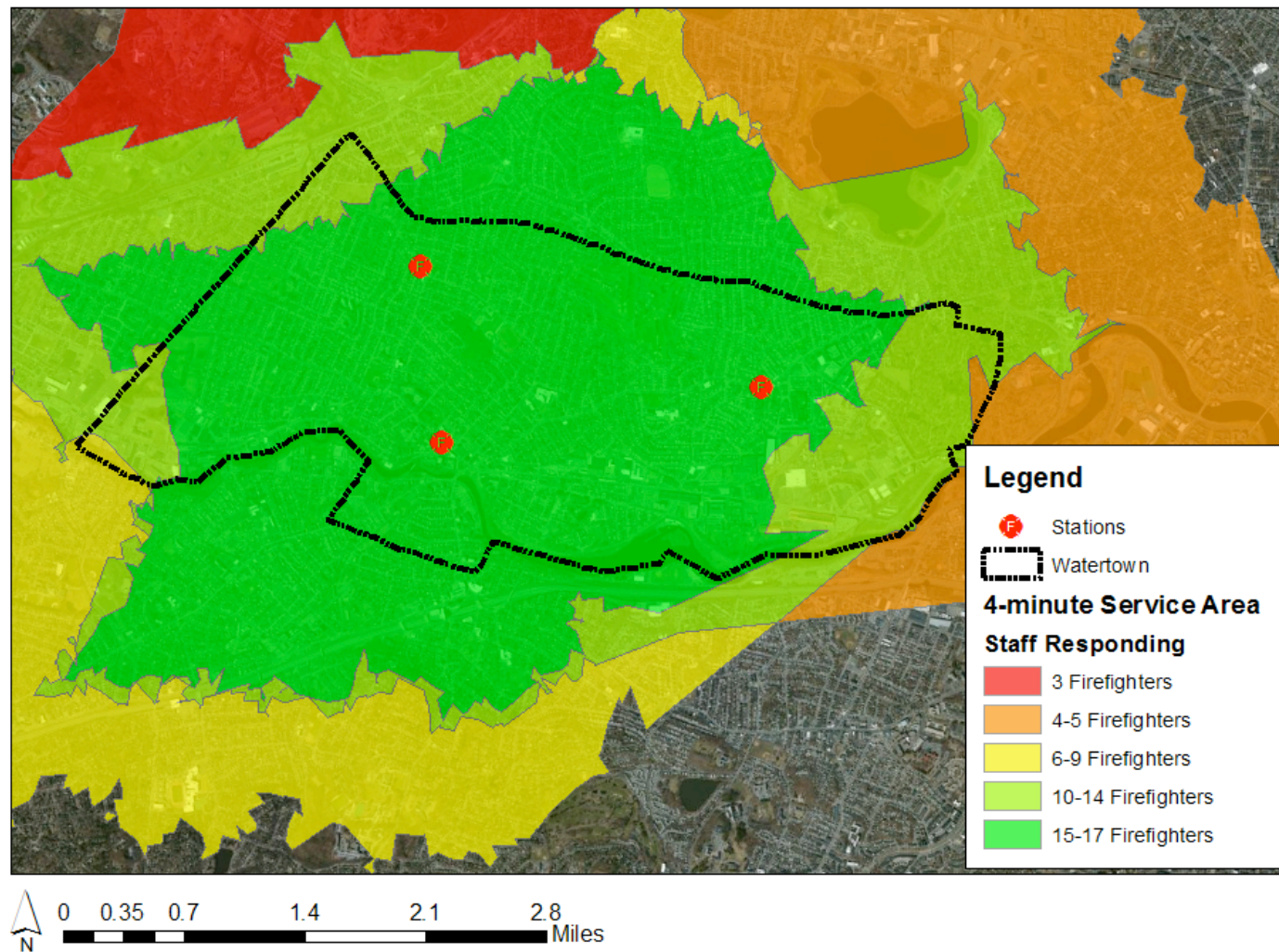
The next step for the project team was to assess the current fire station network utilizing our GIS capabilities. The maps showing station coverage is provided, on the following pages. The paragraphs, that follow, provide a summary of the findings and conclusions that can be drawn from these analyses:

- The maps are broken into 4-minute and 8-minute drive times.
- The Fire Department is well-positioned, from its current locations, to provide a very rapid response throughout the community. This is shown in both the 4-minute drive time map and the 8-minute drive time map. The 4-minute view is most important for single engine responses (EMS, car accidents, etc.) and shows the Department's capability for delivering a rapid initial response to any incident type.
- The Fire Department is also able, within the 8-minute drive time standard, to provide a Town-wide structure fire (or major incident) response of 14+ responders. This is without reference to the availability of mutual aid companies.

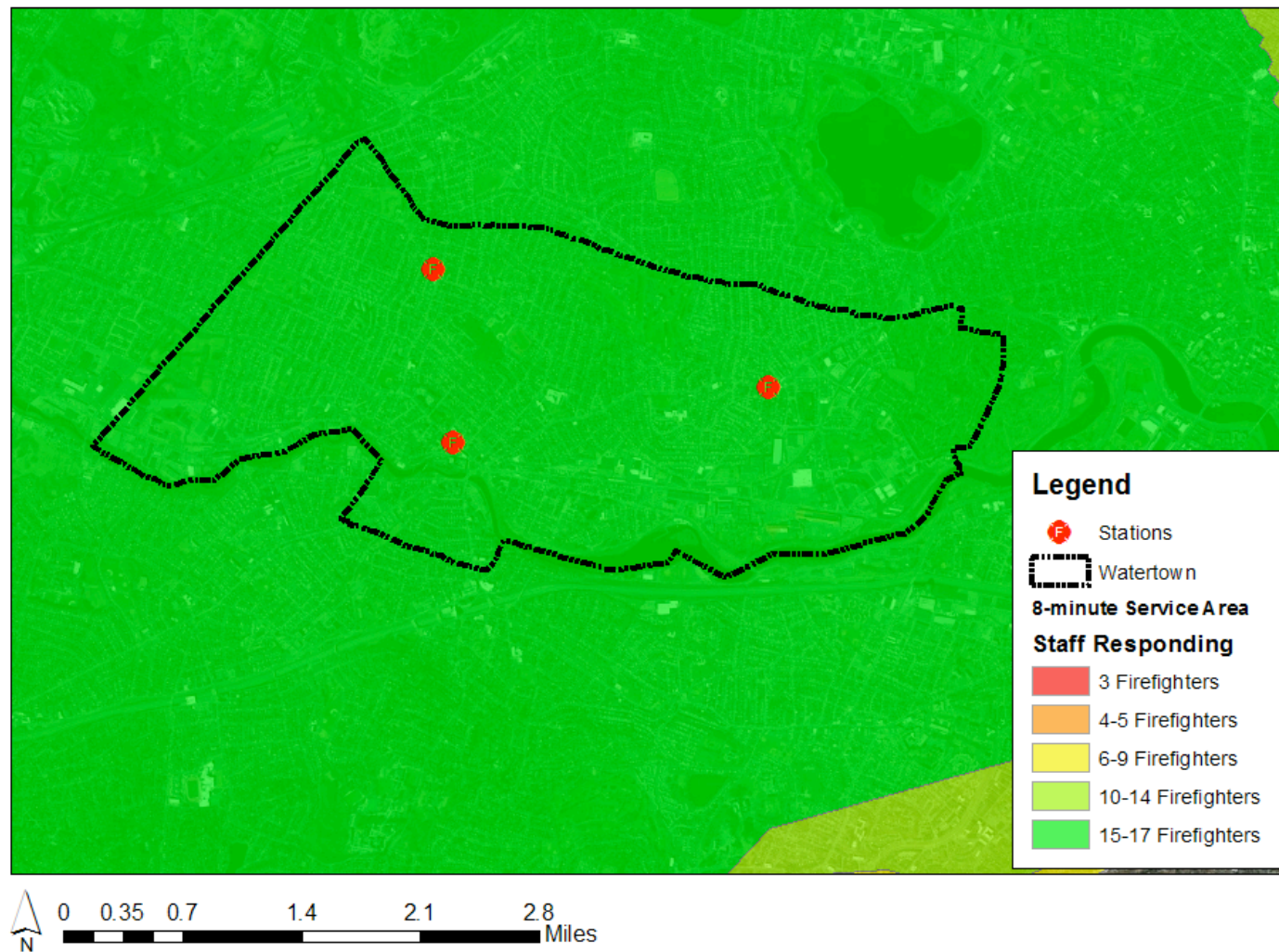
The maps are provided on the following pages. The table, below, shows actual response time average for selected call types:

Call Type	2009	2010	2011
Fire Alarm	4.1	7.0	4.5
Fire Investigation	7.6	5.6	5.2
Structure Fire	4.2	6.1	4.7
Fire Master Box	3.9	4.3	4.7
Fire Hazmat	4.0	10.8	5.9
Medical ALS	5.5	6.0	6.0
Medical BLS	4.4	6.0	5.1
Vehicle Accident	3.7	4.4	4.9

Watertown, MA Current 4-minute Service Area



Watertown, MA Current 8-minute Service Area



A review of the response times, in the table preceding the maps, shows that the Department is arriving at most emergency calls in less than six minutes – from the time of dispatch. There are several issues with these data:

- The number of discrete elements currently tracked in the dispatch center are limited. This means that the Fire Department cannot determine whether they are achieving targeted response times in dispatch, in the stations (turnout time) or in their drive time.
- There is no distinction in the data between emergency and non-emergency responses. There are many calls for which a rapid response will result in no improvement in the situation and which could, in fact, result in increased risk to the community as the Department responds. For these calls, a slower response is more appropriate.
- EMS calls tend to have a longer response time than do fire calls. While the project team cannot determine on a call-by-call basis why this might be happening, it is important to note that ALS EMS calls are, by definition, true emergencies. They should be responded to as rapidly as fire calls – and perhaps faster given that the responders do not need to dress in bunker gear before responding.

Recommendation: The Fire Department must work in conjunction with the Police Department to improve the quality and types of response time data captured. These data are critical for managers to assess the performance of their staff (and even to set response time targets).

Recommendation: Once these data are being captured, Deputy Chiefs should monitor their shift performance. If an analyst is hired for the Fire Department, monitoring and analyzing these response time elements should be a key focus of his / her work.

4. THE FIRE DEPARTMENT IS RESPONSIBLE FOR HANDLING VARIED EMERGENCY RESPONSE WORKLOAD.

The Fire Department is an all-hazards fire/rescue agency. The Department responds to emergencies including: medical events (as first responders), fires, vehicle accidents, other rescues, etc. The information in this section provides an overview of those workloads:

Incident Type	Number of Incidents	% of Total Incidents
Fire / Explosion	64	1.43%
Overpressure / Rupture	3	0.07%
Rescue Call	2,656	59.31%
Hazardous Condition	262	5.85%
Service Call	637	14.23%
Good Intent Call	126	2.81%
False Call	686	15.32%
Severe Weather / Natural Disaster	27	0.60%
Special Type / Complaint	17	0.38%
Total Number of Incidents	4,478	100.00%
Coverage Assignment / Mutual Aid	199	n/a

The paragraphs, which follow, summarize these statistics:

- The majority of calls handled by the Fire Department were Rescue (medical) Calls, with more than 59% of total calls being of this type.
- Service Calls and False Calls each were around 15%, for another 29% of total incidents.
- The remaining 11% of calls included fires, overpressures and other ‘fire’ type events.

The project team next examined the Fire Department’s response policies to calls for service, summarized, below:

Call Type	Dep. Chief	Engine	Ladder	BLS	ALS	Comment
Fire-Water Rescue	1	1	1	1	1	Boat also
Fire Box	1	1	1			
CO2 Alarm		1				
CO2 with Illness	1	1	1	1	1	
Bomb Threat	1	1	1			
Mutual Aid						As requested
Investigations						
Animals in Bldg.			1			
Assist Police			1			
Electrical Problem		1				
Elevator Problem	1	1	1			
Forced Entry			1			
Investigations	1	1	1			
Odor of Gas	1	1	1			
Odor of Smoke	1	1	1			
Lockouts			1			
Smoke in Area		1	1			
Water / Flooding			1			
Wires Down			1			

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Call Type	Dep. Chief	Engine	Ladder	BLS	ALS	Comment
Hazardous Materials Calls						
Level 1 (small / <10 gallons)		1				
Level 2 (> 10 gallons)	1	1	1	1		
Level 3 (unable to control)	1	2	1	1	1	Hazmat Team per Command
Fire Calls						
Fire Master Box	1	2	1			
Brush		1				
Motor Vehicle	1	1	1			
Transformer	1	1	1			
Dumpster	1	1	1			
Arcing Wires	1	1	1			
Structure Fire	1	2	1	1		
Medical Calls						
ALS		1	or 1	1	1	
ALS / Forced Entry		1	1	1	1	
ALS Industrial Accident	1	1	1	1	1	
ALS Vehicle vs. Pedestrian	1	1	1	1	1	
BLS		1	or 1			
BLS / Forced Entry						
Elderly / Patient Assist		1	or 1			

A review of the response policy shows a number of interesting elements to be explored:

- The Fire Department has ordered that the Ladder company be sent, reflexively, on a number of calls for service types – some of which are atypical for fire-rescue agencies across the United States. For example, the Ladder is sent on all fire calls (except brush) including dumpster and transformer fires, to any call where forced entry (or technical rescue) may be required, etc. This is driven by the fact that 1) the Fire Department does not staff a heavy rescue unit capable of carrying the tools required for these tasks and 2) that the majority of heavy rescue and other technical tools (a broader range of monitors and meters for example) have been placed on the Ladder.
- The EMS response system in the Town of Watertown results in a larger number of units being dispatched, particularly to ALS calls where three or more units are commonly dispatched. Sending an Engine (or, if none is available, a Ladder) to EMS calls to assist the ambulance crew is a common practice, though many communities are now examining with more focus those calls that may or may not require this level of response.

- The Fire Department has ordered the dispatch center to send the Deputy Chief on a wide range of (non-medical) calls for service. This is generally a good practice, particularly where multiple units are involved, where forced entry or other property destruction may occur as part of the rescue effort, where units are operating in potentially dangerous environments or where units are operating in areas where operations may be impacted by traffic.
- Many communities are routinely dispatching single engine companies to incidents such as car fires, dumpster fires, wires down, transformer fires and so on. In Watertown, each of these call types generates a response by at least three units.

There is a growing national trend to focus on reducing the number of units that are reflexively dispatched to calls for service. This is being done for a number of reasons, summarized, below:

- Sending fewer units, particularly where budgets are challenging departments to reduce staffing or to reduce minimum deployments, preserves units for the 'next call' to come in.
- Each unit dispatched represents a potential risk management issue for the Town in terms of firefighter injury, automobile vs. fire apparatus accidents, disruption of traffic flows and so on.

While the Department is not large enough to consider some of the approaches that other departments are using (deploying alternative vehicles such as SUV's to response to medical calls, etc.) there are approaches that can and should be taken:

- The Fire Department should focus on each call type to answer the question about whether a unit should be sent at all, and if so, which units can be most efficiently sent.
- The Fire Department should focus on responding with a single engine company to a broader range of fire calls, including car fires, dumpster fires, arcing wires and transformer fires. Clearly, in any of these cases, if a structure is threatened or other circumstances warrant, additional units should be deployed.
- Consideration should be given to issues such as the fuel consumption and operating costs for which vehicles are sent.

- Implementation of prioritization software in the dispatch center focused on more effective call triage should be examined. Many departments are making decisions to send fewer units to EMS calls based on these systems. For example, a teenager with a broken ankle might simply receive a response from an ambulance with no engine company being dispatched.

Recommendation: The Fire Department should be tasked with overall reduction of the number of units that respond to calls for service. This could be done with changing unit deployments and / or implementation of a priority medical dispatch triaging system.

5. THE FIRE DEPARTMENT HAS ADOPTED A FORMAL RESPONSE TO VARIOUS STAFFING LEVELS BY PREDETERMINING WHICH UNITS WILL BE STAFFED AND AT WHAT LEVEL OF STAFFING.

The Fire Department has recently seen reduced workforces on all shifts – this has been a result of budget changes as well as the consequences of long-term disability and, in some cases, extended military deployment. The result from all of these can be shift staffing levels which fall short of the internally viewed as ‘optimal’ level of 21 (which would allow for all five fire apparatus to be staffed with an officer – either Captain or Lieutenant – and two Firefighters, both rescues to be staffed with two Firefighters, and the Chief’s car to be staffed with a Deputy Chief and a Firefighter). Given that shift staffing falls below this level, the Chief has issued the following matrix to enable decisions to be made consistently across all four work groups in the Department with respect to staffing:

**Current Deployment of Personnel
At Various Staffing Levels in the WFD**

Unit	Officers and Firefighters on Duty				
	20	19	18	17	16
Car 2	2	2	2	2	2
Engine 1	3	3	3	3	3
Engine 2	3	3	3	3	3
Engine 3	3	3	3	3	3
Ladder 1	3	2	3	2	3
Ladder 2	2	2	2	2	DOWN
Rescue 1	2	2	2	2	2
Rescue 2	2	2	DOWN	DOWN	DOWN

The following paragraphs summarize some key issues in reviewing this table:

- The fact that the Chief issued this directive is a credit to the Department – the focus on consistency across shifts is a positive sign as to the management of the Department.
- The Department recognizes the engine companies as their primary work unit with three personnel always assigned to these pieces.
- What does not show in this exhibit is that the Department has also established a minimum of five officers per shift. This will be one shift commander (typically a Deputy Chief or perhaps a Captain) and three officers assigned to the engine companies and one for the ladder company.
- Only at the higher end of staffing does the Department staff Rescue 2 – choosing at 18 and 17 personnel to staff Ladder 2 instead. This is an interesting choice given that the volume of the workload in the Department falls in the area of Rescue calls.
- The dedication of a Firefighter to serving as the driver for the Deputy Chief is an issue that should be further explored, particularly at lower levels of staffing on a daily basis.
- As can be seen, below, the shifts are staffed with either 19 or 20 personnel:

Group	1	2	3	4
Total Staffing	20	19	19	20
Impact of LTD / Military	18	17	17	18
Impact of Time Off	15	14	14	15
Use of OT to Cover to Minimum	1	2	2	1

This results in an average predicated level of overtime use of 1.5 personnel per shift (to obtain a staffing level of 16). This is borne out by examining the number of shifts that needed to be covered in calendar 2011, as shown, below:

Number Schedule / Available	Day Tours	Night Tours	FF's on OT to Cover Day Tours	FF's on OT to Cover Night Tour
6	0	1	0	10
7	0	0	0	0
8	1	1	8	8
9	0	2	0	14
10	1	1	6	6
11	12	12	60	60
12	29	18	116	72
13	39	35	117	105
14	52	47	104	94
15	69	62	69	62
16	67	71	0	0
17	45	70	0	0
18	26	21	0	0
19	2	4	0	0
20	2	0	0	0
Total	345	345	480	431
	Covered with OT / Shift		1.4	1.2

The Fire Department's actual experience, in 2011, using overtime to cover shift operations is exactly what would be predicted given their staffing levels and obligations for leave, etc. found in the contract. Furthermore, it should be noted that the Fire Department is filling approximately 8% of its positions, daily, using overtime. On average, the Department is filling one or two positions per day (clearly some days require higher levels due to sickness, etc.). The level of staffing in the Department typically sits near the minimum threshold of 16 personnel – requiring that overtime be utilized to cover one or more vacancies on each shift. It should also be noted that this resulted, in 2011, in 166 night tours and 142 day tours that were staffed at or above the minimum staffing level of 16 currently in effect. Any step towards adding firefighters as

a way of reducing overtime would also increase by that number of shifts staffing levels above the current minimum of 16.

Recommendation: The Fire Department is effectively managing its overtime given current staffing resources and the current minimum staffing level. Adding another firefighter to the complement, while maintaining a minimum staffing level of 16, will result in staffing over the minimum target for almost 50% of the shifts in each year.

6. THE FIRE DEPARTMENT SHOULD REDEPLOY EXISTING STAFF RESOURCES TO EXISTING UNITS.

The project team recommends that the Fire Department consider the following changes in the recommended distribution of personnel.

**Recommended Deployment of Personnel
At Various Staffing Levels in the WFD**

Unit	Officers and Firefighters on Duty				
	20	19	18	17	16
Car 2	1	1	2 ⁵	1	1
Engine 1	3	3	3	3	3
Engine 2	3	3	3	3	3
Engine 3	3	3	3	3	3
Ladder 1	3	3	3	3	2
Ladder 2	3	2	DOWN	DOWN	DOWN
Rescue 1	2	2	2	2	2
Rescue 2	2	2	2	2	2

This change has the following impacts:

- The Fire Department maintains two Rescues at all times, with no additional staffing required. As the primary source of call demand in the Department, it is critical that these units both be staffed at all times. This should significantly reduce reliance on outside units for coverage (i.e., transport) of the Town's EMS calls and should result in a small increase in revenue for no additional personnel cost.
- Only under the 16-personnel scenario are any of the four primary fire units staffed with fewer than three (3) personnel – this is Ladder 1 under the 16-personnel scenario.
- Ladder 2 is only staffed under the 19 and 20-personnel scenarios.

⁵ The project team shows a driver under the 18-person staff level, rather than showing a four-person company on any of the engines or ladders. The Fire Department could argue for staffing one of the front line fire apparatus with four, rather than assigning the driver to the Deputy Chief.

- Car 2 is reduced, under all but one scenario, to the Deputy Chief in the car alone. Only under 18 personnel would the car be staffed with a second person – this is the most flexible location for this position to be assigned for this level of staffing. This allows the Deputy Chief to assign this firefighter to any other unit that responds to an emergency. The alternative would be to staff a fire apparatus with four personnel or an ambulance with three personnel – neither of which is a practical solution.
- This does not address the issue of a four-officer minimum staffing level. That is considered, below.

This movement of personnel can be accomplished simply by order of the Chief.

It does not require any additional budget authority.

Recommendation: Deploy personnel so that Rescue 2 can be staffed at all times. Focus on staffing fire units at three personnel if at all possible. Both of these objectives are achieved by reducing staffing in Car 2 by utilizing the Firefighter assigned as the Deputy Chief's driver to other functions. The project team believes that the appropriate target staffing for the Town is for there to be a minimum of 16 personnel on-duty – this allows for three engines, two ambulances, a ladder and a chief officer to be deployed at appropriate staffing levels. In this staffing approach, personnel could be detailed from Rescue 2 to work with the ladder company and to support the Deputy Chief, if necessary.

7. THE FIRE DEPARTMENT SHOULD CONTROL THE USE OF LEAVE AND WORK WITH THE TOWN ON A CONTRACT CHANGE TO PROVIDE FOR A TARGETED MINIMUM OF FIVE OFFICERS PER SHIFT.

Current policy in the Department allows for the use of overtime to ensure that four officers (Deputy Chief through Lieutenant) are on-duty each day. The current deployment of personnel has six officers per shift:

Group	1	2	3	4
Deputy Chief	1	1	1	1
Captain	2	2	1	1
Lieutenant	3	3	4	4
Total	6	6	6	6

With current levels of leave utilization, the Department should, through careful scheduling of vacations and other scheduled time off, be able to ensure that five officers

are available on most shifts. This would allow for a shift commander, an officer on all three engines, and an officer on Ladder 1.

Recommendation: Work to maintain, through improved scheduling of time off, a target of five officers per shift. Continue current practice of using overtime to maintain a minimum of four officers per shift. This will also require changes in the contract restricting the number of officers who can take leave each day.

8. OPPORTUNITIES EXIST TO ENHANCE THE LEVEL OF STAFF UTILIZATION IN FIRE DEPARTMENT OPERATIONS. THIS INCLUDES MORE PARTICIPATION IN PUBLIC EDUCATION.

The Fire Department operations staff work a schedule that rotates using 24-hour shifts. Under current conditions, the Fire Department's operations personnel perform both emergency and non-emergency functions. These are summarized, below:

Function	Performed by WFD Operations Staff?
Response to Fires	Yes
Response to EMS Incidents	Yes
Response to Rescue / Other Hazards	Yes
Training for Emergency Functions	Yes
Pre-Planning Target Hazard Locations	Yes (facility familiarization)
Conducting Formal Inspections	Yes (commercial buildings)
Testing Hydrants in 1 st Due Area ⁶ (Public)	No (done by Water Dept.)
Testing Hydrants in 1 st Due Area (Private)	No (done by Water Dept.)
Supporting Public Education Efforts	Minimal

The matrix, above, shows that the Fire Department is engaged in primary roles of emergency response and training. However, their involvement in other activities such as inspections is limited. The table, which follows, provides the project team's assessment of the opportunities for expanding the line crew's involvement in various support functions:

⁶ The 'first due' area is an engine company's primary area of responsibility – a geographic area of the Town that is centered around the station from which the engine (or other unit) responds. This results from the typically static deployment model used by most fire / rescue agencies, including the WFD.

Function	Performed by WFD Operations Staff?
Training for Emergency Functions	Critical part of preparation and safety for personnel. Currently performing 2+ hours of training per shift worked.
Pre-Planning Target Hazard Locations	This is an area that should be enhanced. Companies are well-suited for this since they will have to work in these structures and areas in case of emergency. Companies do conduct “familiarization” walk throughs of facilities – and will notify Fire Prevention of there are issues. These walk throughs result in detailed pre-plans for target hazards.
Conducting Formal Inspections	Company officers would need to be certified as inspectors under MA law. Current inspection staff is sufficient to perform formal inspections on key target hazards. However, many mercantile and other smaller facilities are only inspected when they change hands.
Testing Hydrants in 1 st Due Area (Public)	Water Department currently perform annual maintenance and testing of all hydrants in their respective districts. The Fire Department will identify issues with hydrants and forward them to the Water Department.
Testing Hydrants in 1 st Due Area (Private)	The Fire Department does not currently test private hydrants. The Fire Prevention staff require private property owners to show that they have had their hydrants tested within the past year.
Supporting Public Education Efforts	The companies are involved in providing very limited public education support to the community – including fire drills at schools.

The project team’s findings in this area of service delivery suggest that engine companies should focus on increased pre-planning for target hazards in their response areas. The workload data presented earlier in this chapter suggests that companies are operating at approximately 50% of their capacity for handling emergency workload⁷.

⁷ The project team recommends that additional engine companies be added in a discrete response area when workload approaches 10 runs per day per unit. For example, a second engine should be added to a station when the primary engine is handling approximately 10 runs a day.

Emergency Workload by Unit 2010

Unit	Workload	Total Emergency Hours	Hours in 1/2 of the Day	% of 12 Hour Day Spent on Emergency Workload
<u>E1</u>	1,614	470.75	4,380	10.75%
<u>E2</u>	1,335	389.38	4,380	8.89%
<u>E3</u>	1,150	335.42	4,380	7.66%
<u>L1</u>	1,229	358.46	4,380	8.18%
<u>R1</u>	2,188	1,276.33	4,380	29.14%

The units average between 8% and 29% per day handling emergency incidents. The table, below, shows the level of non-emergency workload (training and public education) handled each day:

Non-Emergency Workload by Unit 2010

Unit	Workload	Total Training / Prevention / PE / Maintenance Hours	Hours in 1/2 of the Day	% of 12 Hour Day Spent on Non- Emergency Workload
<u>E1</u>	1,747	2,620.50	4,380	59.83%
<u>E2</u>	1,747	2,620.50	4,380	59.83%
<u>E3</u>	1,747	2,620.50	4,380	59.83%
<u>L1</u>	1,747	2,620.50	4,380	59.83%
<u>R1</u>	1,747	2,620.50	4,380	59.83%

The table, above, shows that all units are spending almost 60% of their day shift on maintenance, training and other administrative support activities (including conducting inspections and the like). The following table shows the combination of the two tables plus the impact of meals and station duties:

Emergency and Non-Emergency Workload by Unit 2010

Unit	Workload	Total Hours	Hours in 1/2 of the Day	% of 12 Hour Day Spent on All Workload
<u>E1</u>	3,361	3,091.25	4,380	70.58%
<u>E2</u>	3,082	3,009.88	4,380	68.72%
<u>E3</u>	2,897	2,955.92	4,380	67.49%
<u>L1</u>	2,976	2,978.96	4,380	68.01%
<u>R1</u>	3,935	3,896.83	4,380	88.97%

The analysis, above, shows that the Fire Department is doing an effective job of utilizing personnel during the daytime hours (we have assumed that all emergency workload takes place on the day half of the shift for purposes of calculating utilization – to avoid the complication of sleep time).

There is some capacity in all units for some increased activity and the project team recommends that this time be focused on increased pre-planning for emergency incidents and on expanding their role in public education. It would not be practical for this expanded role to include personnel assigned to Rescue 1. This should be accomplished first at target hazards and then should be accomplished with a focus on all commercial, mercantile, industrial and multi-occupancy structures. The Insurance Service Organization (ISO) recommends that communities conduct annual inspections and pre-planning of all such structures within the jurisdiction.

If one-hour is sufficient to walk-through an average facility (some larger ones may take longer) a facility can be pre-planned on every shift rotation (one hour to conduct the pre-plan walkthrough and another hour to develop drawings and notes). This would enable the Fire Department to pre-plan more than 730 facilities per year. This calculation is shown below:

Shifts / Year	365
Eligible Companies	4
Company Shift Days	1,460
Shifts / Plan	2
Potential Plans (Max)	730

This would increase utilization for most companies to between 80% and 90% during the day with utilization during the night shift at less than 30% (emergency response and meals only). This would enhance the productivity of the Department for no cost. Alternatively, the Department could increase the number of engine company inspections handled by each unit.

Recommendation: The Fire Department should engage in at least one-hour of pre-planning activity per day per company. If this approach is taken, more than 700 pre-plans could be completed or updated on an annual basis. Initially, facilities should be broken down by first due area, with some exceptions made to expand the scope of the less active companies. Consider adding a layer in the GIS for pre-planning so that the WPD and the WFD have access to these plans.

9. THE PROJECT TEAM EVALUATED ORGANIZATIONAL ALTERNATIVES FOR EMS OPERATIONS MANAGEMENT.

The Watertown Fire Department has a Deputy Chief assigned to provide general oversight for shift command on-duty at all times. This position, per shift, report to the Chief and is responsible for all aspects of operations, staffing and deployment of personnel in the Fire Department. The current role of the Deputy Chiefs as they relate to pre-hospital care include the following:

- Ensuring that the daily schedule and roster provides for the deployment of all front-line apparatus in the Watertown Fire Department.
- Providing direct incident command at major incidents with an EMS component (mass casualty, technical rescue, confined space rescue, extrication, and structure fire). Deputy Chiefs do not typically respond to “routine” medical calls – no matter how serious they are in nature – unless there are special circumstances as noted above.
- The Deputy Chiefs have no direct or on-going responsibility for providing quality control or direct medical supervision. They are not currently involved in the

control or distribution of medications or supplies.

- The Department does not have any specific on-shift individuals responsible for the oversight of EMS services as a separate program – this rests with the Training Officer / EMS Coordinator.

The approach to providing EMS shift command varies across the United States. The project team finds that, among communities the size of Watertown and larger, it is not un-common to maintain shift command for EMS services – particularly when the service is providing advanced life support (ALS) level EMS. These positions typically have responsibilities that are a combination of roles including chart review, quality control, medication coordination, controlled substance distribution and so on. The project team considered several alternatives to address this issue, including the following:

- **Maintenance of the status quo.** This model would remain essentially the same as the approach that is currently in effect with perhaps changes mentioned elsewhere in this report.
- **Maintenance of the current approach with some enhancements.** These enhancements could include the following:
 - Increasing the involvement of the Deputy Chiefs in a range of activities in support of pre-hospital medical services. These roles could include:
 - Distribution of medicines and EMS supplies on shift to the medical units in the Department. This would also add another level of accountability for these materials.
 - Increase their response to serious medical calls beyond those that involve other special circumstances (i.e., extrication, technical rescue, multiple injuries, structure fire). The purpose of this would be to ensure that the system functions as it is intended to. Deputy Chief responses could be set for a range of call types including:
 - Working cardiac arrest or other resuscitation.
 - Drowning.

- Vehicle accident with serious injuries.
- Any call where the ambulance will have a delayed response.
- Provide for Deputy Chief response to several randomly selected emergency medical calls for service, independent on the nature of the call, throughout their shift.
- Conduct follow-up contacts with patients and their families to determine if there are opportunities to improve the level of care provided by the WFD. These calls could be made by the Deputy Chief on the second following shift to allow for some time to have elapsed following the call and to provide for some checks and balances in the contact and reporting of any issues.

The exhibit, that follows, provides the project team's analysis of increasing Deputy Chief involvement in EMS calls. This analysis addresses the benefits and disadvantages as well as highlighting any major differences with the current approach:

Benefits	Challenges	Comparison Points
Enhancement of Current Approaches		
<ul style="list-style-type: none"> Increases the WFD's focus on EMS issues on the shift. Makes shift Deputy Chiefs responsible for overseeing the service delivery on their shift. Increases the accountability of the command staff in Operations for EMS services. Adds a layer of checks and balances to controlled substance and other supplies distribution. Reduces the need for the EMS Officer to restock critical supplies while off-duty. Allows increased management focus on the paramedic engine company program. Most cost effective way of providing for on-shift improvement. Would underscore current efforts at creating checks and balances between EMS and Operations. 	<ul style="list-style-type: none"> Increased response expectations for Deputy Chiefs would increase their workload and reduce their availability for other assignments. Does not provide any additional resources for quality control, issues identification, medical instruction, etc. Could benefit from additional time by medical director and nursing staff conducting ride alongs with WFD units to observe field implementation of protocols. 	<ul style="list-style-type: none"> Makes greater and more focused use of existing resources (Deputy Chiefs) in the EMS area. Would not require any positions to be eliminated and would require the creation of a single new position.

The Fire Department should take immediate steps to increase the involvement of the shift Deputy Chiefs in the management and supervision of EMS services in the City.

The project team recommends the following specific changes to current approaches:

- **Deputy Chiefs should be included on all life threatening calls for service as triaged by the dispatch center.** The Deputy Chief's role on these calls is not to provide medical supervision, but rather to provide for system management and oversight, to support the victim's family, to provide for scene safety and other oversight roles. These roles do not require the Deputy Chief to be a paramedic – they rely on these mid-level managers as the connection between the line employees who are delivering the EMS services and the Department's and Town's senior management team.
- **Deputy Chiefs should be dispatched to non-life-threatening calls for service on a random basis.** In order to be enhance management oversight

EMS, the Deputy Chiefs must also respond to some of the less serious calls for service that make up the majority of EMS calls. The project team recommends that these responses approximate 3% to 5% of calls for service per week. These should span the entire shift.

- **The following shift Deputy Chief should make contact with the victim or their family to ascertain whether the WFD could have provided enhanced services on the call.** The Fire Department should make one attempt to contact the victim's family to ensure that they view patient care as a positive experience and to determine if there were other steps that the Fire Department could or should have taken to improve their support of the victim and their family. Issues should be cataloged and summarized and passed on to EMS command, Operations command, EMS training staff and to the Medical Director for inclusion in future training. While it is not practical to contact all victims, the WFD should target initiating contact with at least 25% of calls – these should be randomly selected, but should include 100% of life threatening calls.
- **Deputy Chiefs should take on additional responsibilities to ensure the efficient delivery of emergency medical services including** serving as a field representative of the Medical Director with the authority as approved, assisting with hospital status (reroute) and issues, following up on complaints about patient care, and reviewing and updating policies and procedures related to EMS delivery.

These changes would require some changes in policies as they relate to controlled substance distribution and call responses.

Recommendation: The Matrix Consulting Group recommends that the Watertown Fire Department increase the responsibility of the Deputy Chiefs for EMS calls. There is no estimated recurring cost associated with this recommendation.

10. THE TOWN SHOULD MANDATE THE DISTRIBUTION OF AUTOMATIC EXTERNAL DEFIBRILLATORS IN SKILLED CARE FACILITIES, PLACES OF PUBLIC ASSEMBLY AND OTHERS.

Extensive medical research has demonstrated that rapid application of external defibrillation by those who witness a cardiac arrest is the most successful method for enhancing survivability of these patients. A number of communities around the United States, Canada and Europe have funded distribution of automatic external defibrillators

(AED's) throughout the response system. In addition, many have provided AED's to a wide range of community interests in the Town and throughout its response area.

However, there is no supporting ordinance in the Town requiring the deployment of these devices to a wide range of venues –it has been viewed as an individual risk-management decision. The Town should work to develop a program by which these devices can be deployed and should support such an effort with an ordinance that requires the following classes of enterprises to have at least one on-site, with an allowance for multiple-businesses to place one in common areas which allow for public access – i.e., a medical office building could place them in the public corridors:

- All medical or medical care facilities, including but not limited to:
 - Hospitals.
 - Skilled care facilities.
 - Rehabilitation facilities.
 - “Urgent care” centers.
 - Medical clinics.
 - Physical therapy businesses.
 - Physicians’ offices.
 - Health clubs, private gyms, etc.
- Venues which allow for public assembly of more than 100 people.
- Schools.
- Sporting events.

This would greatly expand the reach of the AED program, would enable it to be done in a cost-effective manner and would enable the Town to improve on its approaches to provide responses to cardiac emergencies.

Recommendation: The Town should adopt an ordinance requiring the presence of AED's in all medical establishments and places of public assembly. The Fire Department and the Town should work to assist with the placement of these critical devices in locations that cannot afford the full cost of one through a grant program. Furthermore, their location should be added into the CAD system so those near the victim of a heart attack can be directed to one while awaiting the arrival of EMS personnel. The cost would be borne by each medical provider. In the case of a medical office building, the providers could pool together to share this cost.

11. THE WATERTOWN POLICE AND FIRE DEPARTMENTS NEEDS TO FOCUS ON "CUSTOMER SERVICE" ISSUES WITH RESPECT TO EMERGENCY COMMUNICATIONS.

The Watertown Police Department dispatches for the Watertown Fire Department, a public safety practice which this project team supports. However, issues have arisen with respect to resolving problems dispatching some calls, use of air time, explaining changes in the system which need to be addressed in the future. The Police Department, as a result, should take the lead in the following:

- Work with the Fire Department to develop a 'performance contract' for service which would cover such issues as:
 - Ring times.
 - Dispatch times.
 - Problem resolving techniques.
 - Reporting and review meetings.
- Develop measurable performance measures in support of the contract.
- Create a users group with representatives of both departments to address and resolve issues when they arise. This group should meet no less frequently than

quarterly.

- Report back to the Town Manager on an annual basis on the effectiveness of the service and working relationship.

These measures in other jurisdictions have positively addressed perceived and real problems in joint dispatching working relationships.

Recommendation: Develop ‘customer service’ approaches to address and resolve problems in joint dispatching.

12. THE TOWN OF WATERTOWN SHOULD WORK CLOSELY WITH ONE OR MORE OF ITS NEIGHBORS TO EXPLORE A REGIONAL EMS TRANSPORT SERVICE DELIVERY MODEL.

The Town of Watertown’s Fire Department operates with one and sometimes two transport ambulances. Neighboring communities also operate their own emergency medical transport systems from within their Fire Departments. The Town of Watertown could consider an alternative – to jointly staff a second unit with one or more neighboring communities (either using personnel from more than one agency, or alternating the shift which staffs the ambulance – two shifts from Watertown and two shifts from Belmont or some other community). The table, below, provides an interesting calculation regarding ambulance unit demand:

Model	Avg/ EMS Calls	Ambulance Demand	Units Needed
Calls per Hour	0.26	0.33	0.73
Calls per Hour with Prior Hour Impact or 150% of Average Hour Call Load	0.39	0.49	0.89
Calls per Hour with Prior Hour Impact at 95% Confidence or 250% of Average Hour Call Load	0.66	0.82	1.22

The calculation of the number of transport units required is a straightforward mathematical exercise that relies on the following information:

- Determine the average number of calls for service per hour.
- Calculate the straight demand for units.
- In order to assess the impact of peak workloads (periods of time where the demand for ambulances exceeds the average), we examined the need for units at 100% of the average call load, 150% of the average call load and 250% of the average call load (these models show the impact of concurrent calls from the prior hour).

The Matrix Consulting Group then took the Fire Department's workload and evaluated the number of units that are required on an hourly basis using these methodologies. This calculation is shown in the table, above. Note that these analyses are developed using the approximately 2,300 calls for service to which the Fire Department's units were dispatched in 2010.

What this analysis indicates is that most often the Fire Department requires a single transport unit – but that under peak load pressures the Department's need for transport capability exceeds one unit per hour. There are three solutions to this issue:

- Continue to utilize mutual aid.
- Re-deploy personnel in the Fire Department so that there are more than one Rescue unit staffed at all times. This has already been recommended elsewhere in this report.

- Work with neighboring communities in a cost-sharing arrangement that would offset the cost of running a second Rescue unit.

This model would be potentially applicable to other services including the following:

- Emergency communications;
- Public education;
- Fire fleet maintenance;

Recommendation: The project team recommends that the Fire Department and Town Manager seek to work with neighboring communities by offering them the services of Rescue 2 on a cost-sharing basis. Under this model, each community would keep the revenue associated with the calls run in their jurisdictions, and would pay a proportional cost of staffing the ambulance. For example, if one other community participated, the cost reduction to Watertown would be 50% the cost of staffing the ambulance – or approximately \$300,000.

APPENDIX A

PROFILE OF THE FIRE DEPARTMENT

This Appendix is a descriptive profile of the Watertown Fire Department (WFD), prepared by the project team from the Matrix Consulting Group. This profile is intended to serve as a summary of staffing, organization, workload and other factors that describe the operations and services provided by the Watertown Fire Department. This profile is organized into subsequent chapters that describe the Office of the Chief (and other support functions) and Shift Operations. The staffing numbers used are the authorized positions as of July 2011.

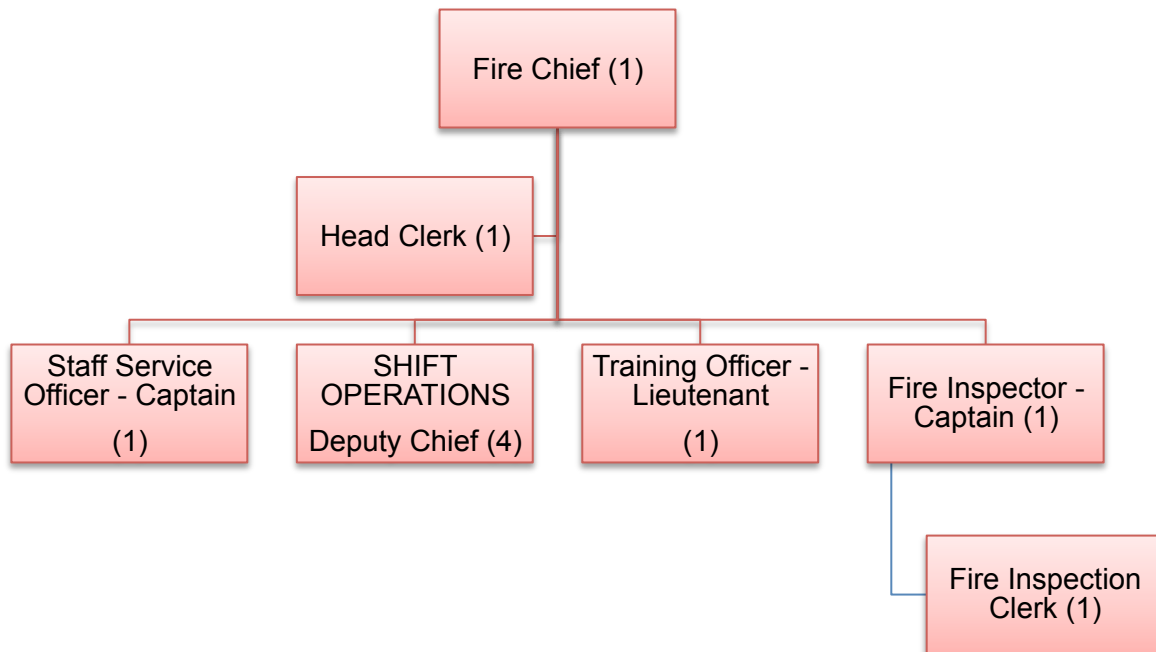
1. OFFICE OF THE CHIEF

(1) Introduction

The Fire Chief has overall responsibility for all department functions; and has direct responsibility for the supervision of all shift operations, training, prevention and all ancillary duties assigned to Deputy Chiefs, Captains and Lieutenants.

(2) Organizational Structure

The plan of organization for the Chief's Office is presented below.



(3) Staffing

The exhibit below provides a summary of the staff reporting directly to the Fire Chief, by function and classification, and also summarizes their key roles and responsibilities. The four Deputy Chiefs assigned to Shift Operations are included in that section.

Note: the columns “Bgt” means budgeted/authorized WFD positions; the column “Vac” means the number of positions in each classification that are vacant as of July 2011.

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Function	Position	Bgt	Vac	Key Roles and Responsibilities
Department Management and Leadership	Fire Chief	1		<ul style="list-style-type: none"> Manages and coordinates all fire services in the Town to meet objectives set by the Town Manager and Town Council. Provides overall leadership and guidance of Department personnel and fire services. Provides overall management and administration of the Department; coordinates resources. A member of the executive management team of the Department and the Town. Develops and maintains good working relationships with other managers in the Town and peers in the regional and state fire service community. Represents WFD in regional and state fire service work efforts and projects. Coordinates and evaluates top Department managers. Performs routine administrative functions in the day-to-day management of the Department.
Admin. Support	Head Clerk	1		<ul style="list-style-type: none"> Personal assistance to the Chief (e.g. correspondence, calendar management, phones). Answers telephones and reception of visitors. General and project support for command staff, Processes/tracks: personnel action forms; travel/training and related expense forms, POST reimbursements, Pays bills, including purchasing card bills, cell phone bills, petty cash. Maintains Department employee files, phone lists, personnel rosters. Processes all timecards and pay related issues for the FD; updates and maintains a manual timekeeping log of employees' work hours, leave hours, and comp time hours bank.
Administration	Captain	1		<ul style="list-style-type: none"> The Staff Service Officer reports directly to the Fire Chief and is responsible for a wide range of administrative and support tasks. This position is responsible for helping the Chief as the only other dedicated administrative position in the Fire Department. Represents the Chief when the Chief is not available. Additional duties for this position include SCBA, Pass and other breathing air systems.

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Function	Position	Bgt	Vac	Key Roles and Responsibilities
Fire Inspections	Captain	1		<ul style="list-style-type: none"> • Conducts site plan reviews on initial submission from developers. • Serves as the Fire Inspector – handling major inspections and follow-ups from the line units. • Investigates Fire Code complaints. • Responds to major incidents during normal business hours. • Conducts business inspections on schools, sprinkler, certificate of occupancy and underground. • Investigates suspicious fires to determine cause and origin. • Coordinates the activities of the engine / other companies on the line in their conduct of inspections, hydrant maintenance, etc.
Fire Prevention	Clerk	1		<ul style="list-style-type: none"> • Supports the Fire Inspection Officer (Captain) • Answers telephones and reception of visitors. • Schedules inspections for the Fire Inspector. • Performs data entry related to fire inspections and plan reviews. • Maintains the property / address files for the Fire Department.
Training / EMS	Lieutenant	1		<ul style="list-style-type: none"> • Reports to one of the Deputy Chiefs who serves as Training Coordinator (as an ancillary duty). • Coordinates all shift training – this includes working with outside providers as well as internal experts. • Develops monthly training calendars. • Provides direct training elements. • Monitors training records and certifications. • Oversees EMS training, certifications and compliance. • Department liaison with area hospitals, OEMS, etc.

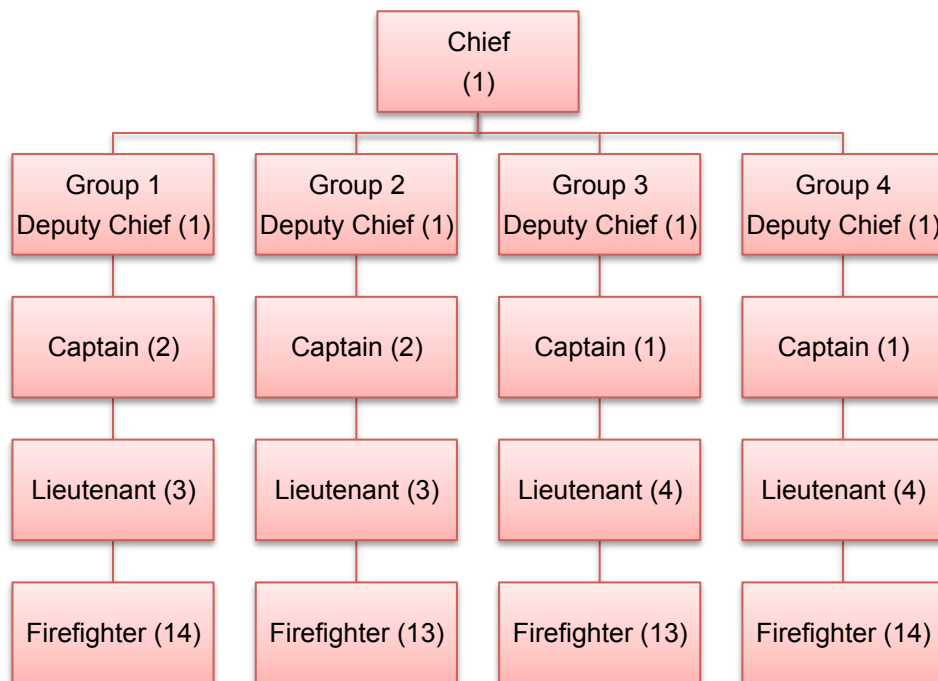
2. SHIFT OPERATIONS

(1) Introduction

A Deputy Chief who reports directly to the Fire Chief manages each of the four work groups in Shift Operations (Groups 1 – 4). This Division is responsible for providing emergency response to fire, EMS (including transport), and Haz-Mat calls for service, hydrant maintenance, equipment maintenance and assists in business inspections in the Town of Watertown. The WFD operates from three stations, each with a Captain ‘station officer’ assigned to coordinate maintenance and other issues.

(2) Organizational Structure

The plan of organization for the Operations Division is presented below.



(3) Staffing

The table below provides a summary of the staff reporting to the Shift Operations Deputy Chiefs, by function and classification, and also summarizes their key roles and responsibilities.

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Function	Position	Bgt	Vac	Key Roles and Responsibilities
Shift Command	Deputy Chief	4		<ul style="list-style-type: none"> Provides overall leadership, management and administration of each Group. All Deputy Chiefs are in the bargaining unit. Each reports directly to the Fire Chief. Work a 24 hour on 72 hour off shift schedule. Serve as the shift commander for their Group. Also have ancillary duties (overtime, computers, training, apparatus / maintenance, station maintenance, hose testing, hydrants, ground ladder testing, etc.).
Suppression	Fire Captain	6		<ul style="list-style-type: none"> Work a 24 hour on 72 hour off shift pattern Serve as the first line supervisor of fire personnel stationed at the three fire stations. Station 1 always has a Captain assigned. Stations two and three have a single Captain assigned across the four groups who serve as a 'station captain' responsible for maintenance and other station issues. Responsible for ensuring scheduled training occurs. Ensuring the adequacy of staffing levels Responds to emergency calls for service. Evaluates performance of subordinates. Monitors the condition of station facilities, apparatus, equipment and schedules needed repairs. Ensures policies and procedures are followed.
	Lieutenant	14		<ul style="list-style-type: none"> Work a 24 hour on 72 hour off shift pattern. Serve as the first line supervisor of fire personnel stationed at the three fire stations. Responsible for ensuring scheduled training occurs. Ensuring the adequacy of staffing levels Responds to emergency calls for service. Evaluates performance of subordinates. Monitors the condition of station facilities, apparatus, equipment and schedules needed repairs. Ensures policies and procedures are followed.
	Firefighter	54		<ul style="list-style-type: none"> Work a 24 hour on 72 hour off shift pattern. Respond to emergency calls for service. Perform hydrant maintenance activities; including painting. Perform company inspections as scheduled. Perform public education activities. Prepare incident reports for entry into the RMS. Assist in checking and maintaining fire apparatus and equipment.

(4) Summary of Operations

Given shift staffing patterns, the Fire Chief has instituted a pre-determined unit deployment plan that varies depending on available personnel. This was distributed to all personnel in an effort to centralize the decision making. This is shown, below:

Unit	Officers and Firefighters on Duty				
	20	19	18	17	16
Car 2	2	2	2	2	2
Engine 1	3	3	3	3	3
Engine 2	3	3	3	3	3
Engine 3	3	3	3	3	3
Ladder 1	3	2	3	2	3
Ladder 2	2	2	2	2	DOWN
Rescue 1	2	2	2	2	2
Rescue 2	2	2	DOWN	DOWN	DOWN

APPENDIX B

DIAGNOSTIC ASSESSMENT

In this section of the report, the primary operations, staffing and management of the Watertown Fire Department are compared with measures of effective organizations from throughout the country. The measures utilized have been derived from the project team's collective experience and represent the following ways to identify divisional strengths as well as improvement opportunities:

- Statements of "effective practices" based on the study team's experience in evaluating operations in other municipalities or "standards" of the profession from other organizations.
- Other statements of "effective practices" based upon consensus standards or performance goals derived from national or international professional service organizations.
- Identification of whether and how the department meets the performance targets.

The purpose of this assessment is to develop an initial overall assessment of departmental operations and identify opportunities for improvement:

Performance Target	Strengths	Potential Improvements
ADMINISTRATION		
The organization has grouped like functions together to support the organizational mission and goals.	The Fire Department has grouped like functions together to support the organizational mission and goals. In addition, supervisors are assigned collateral duties in all functional areas: training, resource management, community education, emergency management, etc.	Only the Fire Chief is outside of the collective bargaining unit. All other personnel are represented by the same union.
The organizational structure has similar spans of control for similar levels of management.	The organization is relatively flat. Deputy Chiefs are responsible for shift supervision, incident command, as well as collateral duties.	
Personnel of like rank have similar responsibilities.	Deputy Chiefs have similar responsibilities. Captains all have similar responsibilities.	
The organizational structure supports goals of one manager per function and ensures that staff report to a single manager.	Given the flat organizational structure, all Deputy Chiefs report to the Chief. Captains and Lieutenants report to their respective Deputy Chiefs.	With only the Chief working a standard work week, issues of collaboration and coordination are a concern. This is mitigated by the extra-ordinary efforts of the command staff but is not an ideal organizational staffing configuration.
The Department utilizes data and converts data into regular reports reflecting the progress of programs, activities, or tasks related to the accomplishment of identified goals and objectives.		The Department does not make frequent use of the data which it tracks.
Members of the Department are aware of the targets, goals, objectives and priorities of the department consistent with their role in the organization.		Hard objectives in terms of response times, etc. are not strictly described and therefore not a part of the Department's culture.
All relevant responders are recorded utilizing the same clock or a coordinated clock (i.e. ambulance, rescue, mutual aid units, etc.)	All fire units are dispatched and times recorded through Town's dispatch center.	The Fire Department should work with the Police Department to ensure that dispatch services and record keeping are in keeping with the WFD's requirements.

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Performance Target	Strengths	Potential Improvements
OPERATIONS		
Differential responses are provided for emergency / non-emergency as a risk management tool.		The Department should re-evaluate its policies to responding to calls for service.
Firefighters should be able to roll apparatus within 1-minute of being dispatched.		Data are not available from the CAD to determine compliance with this standard. A number of discrete time stamp elements are not tracked. This will require effort from both Fire and Police to solve.
Deliver a minimum of 15 personnel (three engines, a rescue and a truck and a chief officer) with a travel time for all responding units of 8-minutes on a 90% fractile basis to fire calls.	The Department has the capacity to deliver this level of staffing when all units are available, at minimum staffing. Additional capacity exists in the form of mutual aid.	
Automatic and mutual aid agreements are in place to ensure that sufficient resources are available to handle rare but intensive response such as structure fires.	The Town has mutual aid agreements in place with neighboring jurisdictions to handle larger scale incidents.	The Town could seek to enter into seamless, total boundary drop agreements with surrounding agencies to assure the closest available resource responds to calls for service regardless of political jurisdiction.
Response protocols clearly define the types and number of responders to be dispatched.	The WFD has response protocols in place that indicate what resources will respond to various types of incidents. This includes second and third levels of response.	
Command staff and company officers are trained in Incident Command System (ICS) and National Incident Management System (NIMS) or comparable approach for structuring and exercising command and supervision at emergency incidents. Includes periodic conduct of training exercises in ICS including incident simulation.	Command staff and company officers receive ICS and NIMS training.	Table top exercises are not routinely performed to rehearse the function of ICS and NIMS. Does not include training exercises with neighboring communities.

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Performance Target	Strengths	Potential Improvements
Fire Suppression crews have immediate access to Pre-Incident Plans and Information. Wireless Transmission is preferable		There are some pre-incidents plans completed by the Department, though this is not a universal approach. There is no process by which plans are automatically updated in response units.
The Department has adopted a loss control goal to return commercial properties to functioning within a specific time frame (i.e. 2 hours).		The Department has not adopted such a policy.
Expedite delivery of emergency cardiac care by training and certifying engine company personnel at advanced skill levels including in some cases providing early Defibrillation capabilities on first-in engine company response units.	The Department provides EMT-D (Defibrillator) trained personnel and operates a minimum of one transport ambulance per shift. A second unit can be staffed. Additional transport capabilities are obtained from neighboring communities or private resources.	
EMS systems are fully integrated with ability of units to communicate and all personnel involved in the chain of patient treatment involved in the Quality Assurance/Improvement efforts.	WFD units have ability to communicate via radio with other neighboring ambulance units.	WFD personnel should be actively engaged in EMS Quality Assurance efforts, specifically chart audits that involve patients contacted by WFD personnel.
Implement and support citizen "self-help" programs in the emergency medical services area such as locating defibrillators in high risk areas and providing AED's and CPR training to community residents and businesses.	CPR training is provided to residents.	The Town should implement a community AED program that provides AEDS at public facilities throughout the Town. This should include integrating their locations into the CAD system so that bystanders can be made aware of AED locations.
The Department has an adopted Safety Plan with a dedicated Safety Officer and elements of safety are included in command, operations and training consistent with NFPA 1510.	The Department's safety functions are supervised by the Staff Services Officer. Full accountability systems have been adopted and are utilized.	Identification of a safety officer on each duty shift to enable responses at fire scenes / large incidents. This role is handled by the SSO when the Captain is on duty.

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Performance Target	Strengths	Potential Improvements
Functional areas within the fire station are appropriate to meet the needs of various functions.		<p>The Department lacks adequate space for physical fitness and workout room that is shared on the apparatus floor.</p> <p>There is not a dedicated area for training equipped with appropriate equipment needed in an adult learning environment.</p>
The Department has full operational inter-operability with emergency responders within the State and/or the region.	The Department participates in both state and regional response networks for both routine and declared emergencies.	
SUPPORT SERVICES		
Suppression crews are actively involved in community smoke detector and CO detector awareness and inspection programs.	Crews are involved in smoke detector inspections prior to real estate transactions.	The Department should expand existing Fire Prevention Education experiences to include smoke detector and CO Detector awareness and inspection programs.
Officers and Firefighters conduct after action discussions and produce after action reports on all major emergencies		After action reports and discussions are not conducted within the Fire Department.
NFPA Firefighter I, II and III requirements for Firefighters.	NFPA Firefighter I and II are required for newly hired all full-time personnel. There is no requirement that experienced firefighters certify at these levels.	
NFPA Fire Officer I, II and III training requirements for fire officers.		There is no requirement under civil service for personnel to obtain these certifications prior to taking / passing / being assigned as an Officer.

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Performance Target	Strengths	Potential Improvements
There is a dedicated training officer who creates monthly and weekly training schedules.	The Deputy Chief over training creates monthly training schedules and monitors training hours. A minimum of 1.5 hours/shift of training is documented. A Lieutenant is directly involved in researching and providing training.	The training and safety functions are supervised by a shift based deputy chief that presents a lack of continuity and consistency between shifts. This is addressed by the assignment of the Training Officer (Lieutenant). The same Training Officer is also the EMS Coordinator responsible for all QA/QC and maintaining track of all certifications.
Training evolutions are based on NFPA 1410.		The Department does not conduct task performance reviews that are largely based on NFPA 1410 targets.
All Training experiences have an evaluation component and the training program has a built in mechanism to measure skills retention.		The Department does not have a formal evaluation mechanism for training with the exception of new employees. There are no adopted performance standards for manipulative tasks.
The Fire Department dedicates staff to fire prevention, fire code inspection/enforcement, engineering/plan checking, and investigations.	There is one dedicated position responsible for fire prevention, inspections, etc.	Many Fire Prevention inspections are the responsibility of shift based personnel with each shift having a primary fire inspection specialist.
The Department has developed a comprehensive risk assessment and inventory information system that quantifies fire risk, hazard, or values for planning purposes. This is based upon the community's occupancy records, and measures the performance of the Fire Department in controlling risk.	The Department has prepared a standard of cover document (in 2008) based on a comprehensive risk assessment.	Continue efforts to complete and update the Town's risk inventory.
Ordinances requiring built-in protection for high-risk occupancies have been adopted	The Town has adopted the State sprinkler ordinance.	

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Performance Target	Strengths	Potential Improvements
The Fire Prevention staff plan-check planning permit applications, fire protection system plans and specifications, and building permit plans for compliance with the Uniform Fire Code.	The Fire Marshal performs plan checks based on the Fire Code.	
A public education program is provided to improve fire safety knowledge and awareness.		The Fire Department has almost no public education component. There is no dedicated staff assigned. The line crews engage in very little public education themselves.
The frequency of State mandated fire prevention inspections by the Department are in accordance with the ordinances and codes.	State mandated fire prevention inspections for schools, hospitals, day cares, nursing homes, public assemblies, and other high risk occupancies are conducted as required.	
HEALTH AND SAFETY		
The Department has instituted a program of physical fitness evaluation and attempts to identify pre-existing conditions that pose a threat to personnel		There is no formal fitness evaluation, other than an annual physical, which is not required for WFD personnel.
The Department has implemented a wellness program (consistent with IAFF/IAFC Wellness Program as published). This includes agreed upon wellness and fitness goals for the Department.		The Department does not have a formal wellness program or fitness goals.